メタリルクロライドのラットを用いた
吸入によるがん原性試験報告書

試験番号：0269

APPENDIX

APPENDIXES

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APPENDIX A 1

CLINICAL OBSERVATION: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 1-1	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 56-7	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
DEATH	Control	0	1	1	1	1	1	1	1	1	1	2	2	2	2
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
DEATH	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50 ppm	1	2	2	3	3	3	3	3	3	3	3	3	3	5
	100 ppm	0	0	0	0	0	0	0	0	0	0	1	1	2	2
	200 ppm	1	2	3	3	3	5	5	6	6	6	6	7	7	8
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	50 ppm	1	1	1	1	1	2	2	2	3	3	3	3	3	3
	100 ppm	1	1	1	1	1	1	1	2	3	3	5	5	5	5
	200 ppm	1	1	1	1	1	1	1	3	3	3	3	3	3	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	1	1	1	1	1	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	2	3	4	4	5	5	6
	50 ppm	5	6	8	8	8	9	9
	100 ppm	2	3	4	4	7	8	8
	200 ppm	9	10	11	12	13	14	15
MORIBUND SACRIFICE	Control	3	3	4	4	4	5	5
	50 ppm	3	4	4	4	4	5	6
	100 ppm	5	5	5	5	6	8	9
	200 ppm	3	3	4	5	5	5	5
LOCOMOTOR MOVEMENT DECR	Control	1	0	1	0	0	1	0
	50 ppm	0	1	0	0	0	1	1
	100 ppm	0	0	0	0	0	2	0
	200 ppm	0	0	0	1	0	0	0
PRONE	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	1	1	1	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	1	0	0	0
WASTING	Control	0	0	0	0	0	1	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	1	0	0
	200 ppm	1	1	1	2	1	1	1

Clinical sign	Group Name	Administration Week-day 1-1	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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	1	1	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	1	1	1	1	1	1	0	0	0	0
	200 ppm	1	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	1	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	1	1	0	0	0	0
	200 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
SOILED	Control	2	0	0	0	0	0	0
	50 ppm	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	1	1	2	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	1	1	1
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	1
	100 ppm	0	0	0	1	0	1	0
	200 ppm	0	0	1	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
EYE OPACITY	Control	1	2	2	2	1	1	1
	50 ppm	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	2	2	1
	200 ppm	0	0	0	0	1	0	0
CATARACT	Control	1	1	1	1	1	1	1
	50 ppm	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	1	0	0

Clinical sign	Group Name	Administration Week-day 1-1	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
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	2
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
EXTERNAL MASS	Control	1	1	1	2	2	2	1	1	2	2	2	1	1	1
	50 ppm	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
EXTERNAL MASS	Control	1	1	1	1	1	2	2	2	2	1	2	2	2	2
	50 ppm	2	3	3	2	2	2	2	1	2	2	2	2	2	2
	100 ppm	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	200 ppm	0	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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
EXTERNAL MASS	Control	2	2	2	2	2	2	2	2	2	3	2	2	2	2
	50 ppm	2	2	2	2	2	2	2	1	1	1	1	1	1	1
	100 ppm	0	0	0	1	1	1	2	2	2	2	2	2	2	3
	200 ppm	1	1	1	1	1	1	2	2	2	3	3	3	4	4
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2
M.NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	200 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	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
EXTERNAL MASS	Control	2	2	2	2	1	1	1	1	1	1	1	2	2	2
	50 ppm	1	2	2	1	1	1	1	2	3	4	4	4	4	2
	100 ppm	3	4	5	6	6	6	6	7	8	7	6	6	6	7
	200 ppm	4	4	4	4	5	5	6	6	6	7	7	7	7	8
INTERNAL MASS	Control	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	50 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	2	2	2	2	2	2	2	1	1	1	2	2	2	2
M.NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	0	0	0	0	0	0	1	1	1	1
	200 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
M.EYE	Control	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
M.MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1	1	1	1	1	0	0	0
M.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	1	1	1	1	1	1	2	2	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
EXTERNAL MASS	Control	2	2	3	3	3	3	5
	50 ppm	4	3	3	3	3	4	4
	100 ppm	9	10	9	11	11	11	12
	200 ppm	8	8	8	8	8	7	6
INTERNAL MASS	Control	1	1	0	0	0	1	1
	50 ppm	0	0	0	0	0	0	2
	100 ppm	0	0	0	0	1	1	0
	200 ppm	2	1	0	0	0	0	0
M.NOSE	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1
	200 ppm	1	1	1	1	1	0	0
M.EYE	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	2	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	1	1	1	1	1
	50 ppm	1	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1
M.MANDIBULAR	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	1	1	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
M.PERI EAR	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	1	1
	100 ppm	1	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 1-1	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
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	1	1	1	0	0	1	1	1	0	0	0
	50 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	50 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	100 ppm	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	2	2	2	2	2	2	2	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
M.NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	1	1	1	1	2	2	2	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M.BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	1	1	1	1	1	1	1	1	2	2	2	2	3	2
	100 ppm	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	200 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
M.SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
M.NECK	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	1	1	1	2	2	2	2
	200 ppm	0	0	0	0	0	0	0
M.BREAST	Control	1	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	1	1	2	2	1	1
	200 ppm	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	2
	50 ppm	2	2	2	2	2	2	2
	100 ppm	2	2	2	2	3	3	3
	200 ppm	1	1	1	1	1	1	1
M.ANTERIOR.DORSUM	Control	0	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	1	1
	200 ppm	1	1	1	1	2	2	1
M.POSTERIOR DORSUM	Control	1	1	1	1	1	1	1
	50 ppm	1	1	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	2
	200 ppm	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	1	2	2	2	2	2	2
	200 ppm	1	1	1	1	1	1	0
M.SCROTUM	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1

Clinical sign	Group Name	Administration Week-day 1-1	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
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	50 ppm	0	1	1	1	1	1	1	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
M.TAIL	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	100 ppm	0	0	0	0	0	0	0	2	1	1	0	0	0	1
	200 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	1	0	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
M.TAIL	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
ANEMIA	Control	1	2	1	0	0	0	0
	50 ppm	1	1	0	0	0	0	0
	100 ppm	1	1	1	2	1	2	0
	200 ppm	0	0	0	1	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0
	50 ppm	0	1	0	0	0	0	1
	100 ppm	0	0	0	0	0	1	0
	200 ppm	0	0	0	1	0	0	0
ABNORMAL RESPIRATION	Control	1	0	0	0	0	1	1
	50 ppm	1	1	0	0	0	0	1
	100 ppm	0	0	0	0	0	2	0
	200 ppm	1	0	0	1	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
BRADYPNEA	Control	1	0	0	0	0	0	0
	50 ppm	1	1	0	0	0	0	1
	100 ppm	0	0	0	0	0	2	0
	200 ppm	1	0	0	1	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	1	1
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 1-1	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
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 28-7	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
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 56-7	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
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	1	1	1
	50 ppm	0	0	0	0	0	0	1
	100 ppm	0	0	0	0	0	0	0
	200 ppm	1	0	0	0	0	0	0
SUBNORMAL TEMP	Control	1	0	1	0	0	0	0
	50 ppm	0	1	0	0	0	0	1
	100 ppm	0	0	0	0	0	2	0
	200 ppm	0	0	0	1	0	0	0

APPENDIX A 2

CLINICAL OBSERVATION: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

Clinical sign	Group Name	Administration Week-day 1-1	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
DEATH	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	1	1	2	2	2	2	2	2	2	2	2	2	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
DEATH	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	2
	50 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	200 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	1	0	0	0	0	0	0	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
DEATH	Control	2	2	2	2	2	2	2	2	3	3	3	3	4	4
	50 ppm	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	100 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	200 ppm	2	2	2	2	2	2	2	2	2	2	3	3	3	3
MORIBUND SACRIFICE	Control	3	3	3	3	3	3	3	4	4	4	6	7	7	7
	50 ppm	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	1	0	0	2	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1	2	1	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	4	4	4	4	4	4	4
	50 ppm	2	3	3	4	4	4	4
	100 ppm	1	2	2	2	2	2	2
	200 ppm	3	3	3	3	4	4	4
MORIBUND SACRIFICE	Control	7	8	8	8	8	8	8
	50 ppm	4	5	5	5	6	6	6
	100 ppm	1	1	1	1	1	2	3
	200 ppm	1	1	1	2	2	2	2
LOCOMOTOR MOVEMENT DECR	Control	0	1	0	0	0	0	0
	50 ppm	1	1	0	0	1	0	0
	100 ppm	0	0	0	0	0	1	0
	200 ppm	0	0	0	1	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0
	50 ppm	0	1	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	1
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	1	0	0	0	0	0
	50 ppm	0	0	0	1	1	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 1-1	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
EXOPHTHALMOS	Control	0	0	0	1	1	1	1	1	1	1	1	1	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
EXOPHTHALMOS	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
EYE OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	50 ppm	0	0	1	1	1	1	1	1	1	2	2	2	2	2
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	50 ppm	0	0	1	1	1	1	1	1	1	2	2	2	2	2
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	1	2	2	1	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	2	2	2	2	2	2
	50 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	50 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	1	1	1	0	1	1	2	2
	50 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	100 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	200 ppm	0	0	0	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
	50 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	2	2	2	2	2	2	2	2	2	2	2	3	3	3
	50 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	2	3	3	3	3	3	3	3	2	2	2	1	2	2
	50 ppm	1	2	2	2	2	2	2	4	4	4	4	4	4	4
	100 ppm	2	2	2	2	2	2	3	3	3	3	3	3	4	5
	200 ppm	1	1	3	3	3	3	3	2	2	2	2	2	3	4
INTERNAL MASS	Control	1	0	0	0	0	1	1	2	1	2	2	1	1	1
	50 ppm	0	0	0	0	0	0	0	1	0	1	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	200 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
EXOPHTHALMOS	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
EYE OPACITY	Control	3	2	2	2	2	2	3
	50 ppm	2	2	2	2	2	2	2
	100 ppm	2	2	2	2	3	3	3
	200 ppm	0	0	0	0	0	0	0
CATARACT	Control	2	2	2	2	2	2	2
	50 ppm	2	2	2	2	2	2	2
	100 ppm	2	2	2	2	2	2	2
	200 ppm	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	1
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	1	1	1
	200 ppm	0	0	0	0	0	0	0
EXTERNAL MASS	Control	3	3	3	3	3	4	6
	50 ppm	4	3	5	5	5	5	5
	100 ppm	6	7	7	7	10	10	12
	200 ppm	4	4	4	4	5	5	6
INTERNAL MASS	Control	1	1	0	0	0	0	0
	50 ppm	1	2	1	1	1	1	1
	100 ppm	1	1	1	1	1	1	0
	200 ppm	1	1	1	2	1	1	2
M.PERI MOUTH	Control	1	1	0	0	0	0	0
	50 ppm	0	0	0	0	0	1	0
	100 ppm	0	0	0	0	1	0	1
	200 ppm	0	0	0	0	0	0	0
M.ORAL CAVITY	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 1-1	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
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.BREAST	Control	0	0	0	0	0	0	1	1	1	0	1	1	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
M.PERI EAR	Control	1	1	1	1	1	1	1	1	1	1	1	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	50 ppm	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	100 ppm	1	1	1	1	1	1	1	1	0	0	0	0	1	1
	200 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	1	1	1	1	1	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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
M.HINDLIMB	Control	0	1	1	1	1	1	1	1	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	2	2	2	2	2	2	2
	100 ppm	1	1	1	1	1	1	2	2	3	3	3	3	3	4
	200 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
M.PERI EAR	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
M.NECK	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	1
	200 ppm	0	0	0	0	0	0	0
M.BREAST	Control	1	1	1	1	1	1	1
	50 ppm	2	1	1	1	1	2	2
	100 ppm	2	3	3	3	3	3	5
	200 ppm	1	1	1	1	3	3	4
M.ABDOMEN	Control	1	1	2	2	2	2	4
	50 ppm	0	0	1	1	1	1	1
	100 ppm	0	0	0	0	3	3	3
	200 ppm	0	0	0	0	0	0	0
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1
M.HINDLIMB	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	1	1
	50 ppm	2	2	3	3	3	3	3
	100 ppm	4	4	4	4	5	5	4
	200 ppm	1	1	1	1	0	0	0

Clinical sign	Group Name	Administration Week-day 1-1	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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 28-7	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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	1	1	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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 42-7	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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 56-7	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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 70-7	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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
ANEMIA	Control	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	2	1	0	0
	50 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	2	1	0	0
	50 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	2	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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
	50 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	1	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 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	1	0	0	1	0	0	0
	50 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Clinical sign	Group Name	Administration Week-day 98-7	99-7	100-7	101-7	102-7	103-7	104-7
ANEMIA	Control	1	1	0	0	0	0	0
	50 ppm	1	1	0	0	0	0	0
	100 ppm	0	0	0	0	1	3	1
	200 ppm	1	1	1	2	1	1	1
IRREGULAR BREATHING	Control	0	1	0	0	0	0	0
	50 ppm	1	1	0	0	1	0	0
	100 ppm	0	0	0	0	0	1	0
	200 ppm	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	1	0	0	0	0	0
	50 ppm	1	1	0	0	1	0	0
	100 ppm	0	0	0	0	0	1	0
	200 ppm	0	0	0	1	0	0	0
BRADYPNEA	Control	0	1	0	0	0	0	0
	50 ppm	1	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	1	0
	200 ppm	0	0	0	1	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0	0
	50 ppm	0	0	0	0	0	0	0
	100 ppm	0	0	0	0	0	0	0
	200 ppm	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	1	0	0	0	0	0
	50 ppm	1	1	0	0	0	0	0
	100 ppm	0	0	0	0	0	1	0
	200 ppm	0	0	0	1	0	0	0

APPENDIX B 1

BODY WEIGHT CHANGES: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 0	1	1	2	3	4	5
Control	119± 4	122± 5	149± 8	183± 10	209± 12	229± 13	246± 14
50 ppm	118± 5	122± 5	149± 7	184± 9	211± 10	234± 11	252± 11
100 ppm	119± 4	123± 5	151± 8	185± 11	211± 12	231± 13	246± 15
200 ppm	119± 4	123± 4	146± 7	177± 9**	200± 11**	216± 11**	230± 12**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 6	7	8	9	10	11	12
Control	264± 14	280± 13	291± 14	304± 15	314± 16	322± 17	328± 19
50 ppm	267± 12	282± 12	295± 12	306± 13	313± 14	321± 15	328± 16
100 ppm	261± 15	275± 15	287± 16	299± 15	305± 15*	313± 15*	320± 15*
200 ppm	243± 12**	257± 12**	267± 13**	278± 12**	287± 13**	295± 14**	301± 14**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 13	14	18	22	26	30	34
Control	337± 21	344± 22	372± 18	389± 20	398± 18	403± 19	420± 22
50 ppm	338± 17	345± 18	372± 18	388± 20	397± 20	403± 22	419± 24
100 ppm	329± 16	336± 18	362± 20*	379± 19*	385± 17**	391± 19**	404± 19**
200 ppm	310± 15**	317± 15**	337± 18**	348± 18**	357± 18**	365± 20**	381± 21**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 38	42	46	50	54	58	62
Control	436± 22	444± 23	450± 22	454± 22	463± 23	470± 24	469± 24
50 ppm	438± 23	446± 24	449± 23	458± 24	466± 25	471± 26	474± 27
100 ppm	420± 20**	429± 19**	433± 19**	440± 19**	445± 20**	451± 21**	452± 21**
200 ppm	394± 20**	402± 20**	403± 20**	412± 21**	418± 22**	420± 21**	423± 22**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 66	70	74	78	82	86	90
Control	469± 25	470± 27	471± 25	471± 26	466± 25	464± 26	457± 28
50 ppm	476± 28	476± 31	477± 32	474± 30	474± 31	472± 29	471± 30
100 ppm	452± 20**	454± 22**	455± 22*	452± 23**	452± 42	458± 29	460± 54
200 ppm	422± 22**	425± 23**	425± 24**	424± 25**	424± 38**	428± 36**	427± 41**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 94	98	102	104
Control	446± 32	432± 44	430± 37	423± 33
50 ppm	459± 32	450± 37	441± 34	430± 41
100 ppm	444± 31	436± 39	420± 42	417± 29
200 ppm	421± 40**	408± 47*	405± 44*	402± 51

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX B 2

BODY WEIGHT CHANGES: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 0	1	1	2	3	4	5
Control	97± 4	99± 4	115± 6	129± 6	139± 7	146± 7	154± 8
50 ppm	97± 4	99± 4	113± 6	129± 6	140± 7	148± 8	156± 9
100 ppm	97± 4	100± 4	115± 6	130± 7	141± 7	149± 7	156± 7
200 ppm	97± 4	100± 4	112± 6	126± 6	136± 6	142± 7**	148± 8**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 6	7	8	9	10	11	12
Control	163± 9	170± 9	176± 10	180± 10	184± 10	188± 10	190± 10
50 ppm	162± 10	170± 10	175± 10	179± 10	183± 10	188± 11	190± 10
100 ppm	162± 8	169± 8	173± 8	177± 8	180± 9	184± 9	187± 10
200 ppm	154± 8**	162± 9**	167± 9**	170± 10**	174± 10**	178± 10**	181± 10**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 13	14	18	22	26	30	34
Control	194± 11	195± 11	203± 12	211± 14	223± 12	229± 13	237± 14
50 ppm	194± 11	195± 12	204± 13	210± 13	223± 12	231± 13	238± 14
100 ppm	191± 10	193± 10	200± 13	207± 14	219± 13	225± 14	232± 15
200 ppm	184± 10**	184± 10**	193± 12**	200± 12**	212± 11**	217± 12**	225± 12**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 38	42	46	50	54	58	62
Control	243± 14	247± 15	251± 15	259± 18	265± 19	271± 20	278± 23
50 ppm	248± 14	251± 14	257± 15	266± 16	272± 18	280± 18*	285± 18
100 ppm	238± 16	242± 16	247± 18	253± 18	259± 20	265± 23	270± 23
200 ppm	230± 12**	233± 13**	238± 12**	242± 13**	249± 17**	253± 16**	259± 18**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 66	70	74	78	82	86	90
Control	285± 24	290± 25	291± 25	297± 27	300± 31	307± 30	306± 35
50 ppm	292± 20	298± 26	306± 23**	306± 22	312± 24	316± 27	322± 24*
100 ppm	276± 23	282± 24	287± 25	290± 26	294± 30	303± 24	308± 26
200 ppm	265± 18**	270± 18**	275± 18**	279± 18**	286± 20**	292± 21*	290± 27*

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 94	98	102	104
Control	306± 42	311± 32	312± 33	309± 43
50 ppm	323± 29*	322± 37	324± 32	322± 33
100 ppm	310± 26	312± 29	311± 32	311± 32
200 ppm	296± 25*	295± 27	299± 29	297± 31

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX C 1

FOOD CONSUMPTION CHANGES: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 1	2	3	4	5	6	7
Control	16.0± 0.9	17.2± 1.2	17.8± 1.1	17.5± 1.3	18.1± 1.2	18.6± 1.3	18.8± 1.3
50 ppm	16.2± 1.0	17.6± 1.2	18.6± 1.2**	18.5± 1.4**	18.4± 1.0	18.4± 1.2	18.7± 1.4
100 ppm	15.8± 0.9	17.9± 1.3*	18.4± 1.3*	18.0± 1.5	17.9± 1.1	17.7± 1.1**	18.2± 1.2
200 ppm	14.5± 0.8**	17.2± 1.0	17.1± 1.1**	16.5± 1.1**	16.8± 1.2**	17.2± 1.3**	17.5± 0.9**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 8	9	10	11	12	13	14
Control	18.4± 1.1	18.3± 1.3	18.8± 1.3	18.2± 1.3	17.6± 1.3	18.5± 1.3	17.7± 1.4
50 ppm	18.8± 1.2	18.4± 1.1	18.2± 1.5*	18.0± 1.4	18.0± 1.3	18.9± 1.3	18.3± 1.3
100 ppm	18.3± 1.4	18.2± 1.2	18.0± 1.2**	18.1± 1.3	17.8± 1.3	18.6± 1.2	18.3± 1.4
200 ppm	17.1± 1.3**	17.2± 1.3**	17.7± 1.1**	17.7± 1.2	17.3± 1.0	17.9± 1.1	17.2± 1.1

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 18	22	26	30	34	38	42
Control	17.9± 1.1	18.0± 1.1	18.0± 1.1	18.4± 1.2	18.2± 1.2	18.5± 1.1	18.8± 1.1
50 ppm	17.8± 1.3	17.8± 1.0	18.1± 1.2	18.0± 1.1	17.9± 1.2	18.0± 1.0*	18.0± 1.0**
100 ppm	17.7± 1.3	17.8± 1.0	17.8± 1.2	18.8± 1.3	17.8± 1.4	18.0± 1.2	18.3± 0.9*
200 ppm	16.8± 1.1**	17.0± 1.2**	17.3± 1.1**	18.5± 1.3	17.8± 1.1	17.4± 1.0**	18.0± 1.0**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 46	50	54	58	62	66	70
Control	18.5± 0.9	18.8± 0.9	18.7± 1.1	18.4± 1.0	18.4± 1.0	18.6± 1.0	18.7± 1.8
50 ppm	18.0± 1.0*	18.8± 1.1	18.2± 1.1	18.2± 1.2	18.5± 1.1	18.5± 1.4	18.8± 1.5
100 ppm	18.5± 0.8	18.8± 1.0	18.0± 1.0*	18.5± 1.0	18.3± 1.0	18.2± 1.0	18.9± 1.2
200 ppm	17.6± 1.0**	18.2± 1.1**	17.9± 1.1**	17.8± 1.0*	17.9± 1.0	17.9± 1.2**	18.6± 1.4

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 74	78	82	86	90	94	98
Control	18.7± 1.0	19.5± 1.4	18.9± 1.2	19.3± 1.3	19.4± 1.9	18.7± 1.7	18.9± 3.9
50 ppm	18.6± 1.3	19.1± 1.3	18.6± 1.5	18.6± 2.0	19.5± 1.8	18.4± 1.8	19.5± 2.1
100 ppm	19.1± 1.2	18.9± 2.0	18.9± 3.0	19.3± 2.1	19.5± 3.2	18.9± 2.0	19.8± 3.3
200 ppm	18.4± 1.3	18.7± 2.2	18.7± 3.1	18.9± 2.7	19.1± 3.2	19.4± 2.5	19.0± 2.7

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 102	104
Control	19.0± 2.2	18.5± 2.8
50 ppm	18.0± 2.8	17.7± 3.7
100 ppm	18.6± 4.2	18.9± 2.3
200 ppm	18.2± 3.9	18.5± 3.5

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX C 2

FOOD CONSUMPTION CHANGES: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 1	2	3	4	5	6	7
Control	13.0± 1.0	12.9± 0.9	12.3± 1.0	12.2± 1.0	12.8± 1.0	12.9± 1.1	12.8± 1.2
50 ppm	12.5± 0.8*	13.0± 0.8	13.0± 1.2**	12.3± 1.1	12.6± 1.0	12.5± 1.0	12.8± 1.2
100 ppm	12.8± 1.0	13.7± 1.1**	13.3± 1.1**	12.5± 0.8	12.5± 1.0	12.2± 1.0**	12.5± 0.9
200 ppm	11.7± 0.8**	13.3± 0.7	12.5± 0.7	11.8± 1.0	11.8± 1.0**	12.0± 1.0**	12.7± 1.2

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 8	9	10	11	12	13	14
Control	12.8± 1.0	12.6± 1.1	12.4± 1.1	12.5± 1.2	12.2± 1.1	12.7± 0.9	11.6± 1.1
50 ppm	12.8± 1.2	11.9± 1.0**	12.2± 0.9	12.6± 1.2	12.4± 1.2	12.4± 1.1	11.7± 1.1
100 ppm	12.2± 1.0*	11.8± 1.0**	12.0± 1.0	12.5± 1.1	12.2± 1.0	12.9± 1.1	11.8± 1.2
200 ppm	12.6± 1.1	12.3± 1.4	12.3± 1.1	12.7± 1.2	12.1± 1.0	12.6± 1.2	11.7± 1.1

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 18	22	26	30	34	38	42
Control	12.0± 1.0	12.2± 0.9	13.7± 1.2	13.4± 1.2	13.1± 0.9	12.2± 0.9	13.0± 0.9
50 ppm	11.8± 1.1	11.8± 0.9*	13.6± 1.3	13.0± 1.0	12.7± 1.0	12.5± 0.8	12.6± 0.7
100 ppm	12.1± 1.3	12.1± 1.1	13.8± 1.7	13.1± 1.2	13.1± 1.0	12.2± 1.1	12.5± 1.1*
200 ppm	12.2± 1.1	12.7± 1.2	14.0± 1.7	13.6± 2.0	13.4± 1.2	12.4± 0.9	13.1± 1.0

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 46	50	54	58	62	66	70
Control	13.1± 0.9	14.1± 1.2	13.1± 0.9	13.2± 1.1	13.8± 1.1	14.0± 1.2	14.4± 1.2
50 ppm	13.0± 0.9	13.7± 1.2	13.0± 1.1	13.3± 0.9	13.0± 1.0**	13.5± 1.5	13.8± 2.0
100 ppm	13.1± 1.1	13.2± 1.2**	12.9± 1.2	13.0± 1.2	13.1± 1.1**	13.5± 1.0	13.9± 1.3*
200 ppm	13.2± 0.8	13.1± 0.8**	12.9± 1.9	12.9± 1.1	13.4± 1.1	13.3± 1.0**	13.9± 0.9

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 74	78	82	86	90	94	98
Control	13.6± 1.6	14.4± 1.3	14.2± 2.0	14.5± 1.5	14.3± 2.2	14.4± 1.7	14.7± 2.6
50 ppm	14.1± 1.1	13.7± 0.9	13.9± 1.5	14.1± 1.8	14.4± 1.4	14.1± 1.8	14.7± 2.2
100 ppm	13.9± 1.3	13.9± 1.4	13.8± 1.6	14.4± 1.2	14.4± 1.5	13.8± 1.3	14.7± 2.0
200 ppm	14.0± 1.2	14.0± 1.2	14.3± 1.1	14.4± 1.2	13.7± 2.2	14.5± 1.5	14.4± 1.5

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

Group Name	Administration week 102	104
Control	14.7± 2.3	14.5± 2.7
50 ppm	14.5± 2.4	14.1± 2.2
100 ppm	13.7± 2.2	13.5± 2.5
200 ppm	14.0± 1.6	14.0± 1.9

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX D 1

HEMATOLOGY: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	RED BLOOD CELL $10^6/\mu\ell$	HEMOGLOBIN g/dℓ	HEMATOCRIT %	MCV f ℓ	MCH p g	MCHC g/dℓ	PLATELET $10^3/\mu\ell$
Control	37	7.56± 1.58	13.2± 3.0	40.3± 7.3	54.2± 8.4	17.6± 2.6	32.5± 2.4	971± 277
50 ppm	34	7.82± 1.92	13.8± 3.6	41.2± 9.0	54.1± 10.3	17.7± 2.0	33.0± 3.1	918± 281
100 ppm	33	7.39± 1.71	12.2± 3.4	37.6± 9.1	50.9± 3.5*	16.5± 1.8	32.3± 2.2	1126± 330
200 ppm	29	8.92± 1.39**	15.4± 2.7*	45.8± 7.3*	51.4± 2.4*	17.2± 1.2	33.5± 1.5*	839± 224

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

(HCL070)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-1
SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$		Differential WBC (%) N-BAND		N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHERS	
Control	37	12.98±	36.74	1±	1	54±	12	1±	1	0±	0	5±	2	34±	10	5±	15
50 ppm	34	11.71±	27.60	1±	1	54±	10	2±	1	0±	0	5±	2	34±	8	5±	10
100 ppm	33	8.31±	2.74	1±	1	59±	12	1±	1	0±	0	5±	2	30±	11	4±	3
200 ppm	29	7.93±	3.17	1±	2	56±	9	1±	1	0±	0	6±	2**	32±	10	3±	3

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX D 2

HEMATOLOGY: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	RED BLOOD CELL $10^6/\mu\ell$	HEMOGLOBIN g/dℓ	HEMATOCRIT %	MCV f ℓ	MCH p g	MCHC g/dℓ	PLATELET $10^3/\mu\ell$
Control	35	8.12± 0.69	15.2± 1.0	43.8± 2.8	54.0± 2.5	18.7± 1.0	34.7± 1.9	630± 109
50 ppm	38	8.01± 0.74	14.7± 1.8	43.1± 4.5	53.8± 3.3	18.3± 1.6	34.0± 2.1	636± 144
100 ppm	43	7.89± 1.22	14.8± 1.9	42.9± 5.1	55.2± 6.6	19.0± 2.3	34.4± 2.5	619± 108
200 ppm	44	8.03± 1.25	14.8± 2.0	43.3± 5.6	55.1± 8.0	18.8± 2.7	34.2± 1.5	632± 139

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-1
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	WBC $10^3/\mu\ell$		Differential WBC (%) N-BAND		N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHERS	
Control	35	4.17±	2.16	1±	1	50±	11	1±	1	0±	0	5±	2	41±	11	2±	2
50 ppm	38	4.93±	5.71	1±	1	47±	12	1±	1	0±	0	5±	2	42±	11	4±	11
100 ppm	43	7.56±	22.75	2±	2	44±	12	1±	1	0±	0	5±	2	44±	13	4±	13
200 ppm	44	4.80±	6.72	1±	2	46±	9	2±	1	0±	0	5±	2	44±	10	3±	10

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX E1

BIOCHEMISTRY: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-2
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

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	6.5±	0.3	3.2±	0.2	1.0±	0.1	0.20±	0.12	148±	23	213±	58	218±	109
50 ppm	34	6.5±	0.4	3.2±	0.3	1.0±	0.1	0.31±	0.58**	148±	22	258±	72*	382±	184**
100 ppm	33	6.5±	0.5	3.1±	0.3	0.9±	0.1*	0.21±	0.08	142±	25	258±	84*	383±	243**
200 ppm	29	6.5±	0.3	3.2±	0.2	1.0±	0.1	0.23±	0.07**	150±	17	266±	84*	394±	294*

Significant defference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

(HCL074)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-2
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

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	306± 79	69± 55	37± 21	194± 137	159± 64	8± 6	92± 24
50 ppm	34	368± 95*	90± 177	49± 67	344± 938	166± 105	11± 8*	94± 57
100 ppm	33	364± 107*	57± 20	39± 18	184± 29	172± 83	11± 12	89± 21
200 ppm	29	370± 108*	74± 28	44± 15*	196± 37**	158± 86	12± 7**	80± 13**

Significant defference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-2
SEX : MALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

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	24.2±	6.5	0.7±	0.3	141±	1	3.7±	0.3	104±	2	10.7±	0.4	4.3±	0.8
50 ppm	34	33.0±	14.4**	1.0±	0.3**	140±	2	3.8±	0.3	102±	2*	11.1±	0.6**	5.3±	1.4**
100 ppm	33	42.1±	33.6**	1.2±	1.0**	140±	2	4.0±	0.4**	102±	3**	11.5±	1.1**	6.6±	4.0**
200 ppm	29	34.8±	20.1**	0.9±	0.6	140±	2	3.9±	0.3	101±	2**	11.1±	0.7*	6.2±	2.3**

Significant defference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX E2

BIOCHEMISTRY: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-2
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	35	6.9±	0.5	3.9±	0.3	1.3±	0.2	0.23±	0.31	146±	20	184±	98	216±	437
50 ppm	38	7.0±	0.4	4.1±	0.3*	1.4±	0.1	0.19±	0.04	144±	22	164±	41	134±	107
100 ppm	43	6.9±	0.4	4.1±	0.2*	1.4±	0.1**	0.19±	0.09	151±	18	148±	30*	123±	169
200 ppm	44	6.9±	0.4	4.0±	0.3	1.4±	0.1*	0.24±	0.40	148±	20	153±	51	107±	92*

Significant defference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-2
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	PHOSPHOLIPID mg/dℓ	GOT IU/ℓ	GPT IU/ℓ	LDH IU/ℓ	ALP IU/ℓ	G-GTP IU/ℓ	CPK IU/ℓ
Control	35	307± 128	107± 55	68± 33	211± 80	127± 86	7± 6	84± 17
50 ppm	38	279± 66	133± 121	71± 57	235± 200	123± 66	7± 4	94± 66
100 ppm	43	257± 55*	113± 77	63± 29	287± 625	146± 75	7± 3	96± 86
200 ppm	44	263± 92*	119± 143	61± 39	195± 111	132± 68	6± 3	79± 53**

Significant defference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 105-2
SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
ALL ANIMALS (105W)

Group Name	NO. of Animals	UREA NITROGEN mg/dl	CREATININE mg/dl	SODIUM mEq/l	POTASSIUM mEq/l	CHLORIDE mEq/l	CALCIUM mg/dl	INORGANIC PHOSPHORUS mg/dl
Control	35	16.8± 3.3	0.5± 0.1	139± 2	3.4± 0.3	101± 3	10.5± 0.5	3.5± 0.8
50 ppm	38	16.1± 2.0	0.5± 0.1	140± 1	3.5± 0.4	102± 2	10.6± 0.4	3.7± 0.9
100 ppm	43	17.7± 3.0	0.5± 0.1	140± 2	3.5± 0.3	102± 2	10.5± 0.3	4.0± 0.9*
200 ppm	44	17.3± 2.6	0.5± 0.1	139± 2	3.5± 0.3	101± 3	10.5± 0.3	4.2± 0.9**

Significant defference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

(HCL074)

APPENDIX F 1

URINALYSIS: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 106-5
SEX : MALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH 5.0	6.0	6.5	7.0	7.5	8.0	8.5	CHI	Protein −	±	+	2+	3+	4+	CHI	Glucose −	±	+	2+	3+	4+	CHI	Ketone body −	±	+	2+	3+	4+	CHI	Bilirubin −	+	2+	3+	CHI
Control	39	0	0	6	9	12	11	1		0	0	0	2	11	26		39	0	0	0	0	0		38	1	0	0	0	0		39	0	0	0	
50 ppm	36	0	2	5	14	10	5	0		0	0	0	0	9	27		36	0	0	0	0	0		35	0	0	0	0	1		36	0	0	0	
100 ppm	33	0	1	7	14	7	4	0		0	0	0	0	5	28		33	0	0	0	0	0		33	0	0	0	0	0		33	0	0	0	
200 ppm	30	0	1	8	10	9	2	0		0	0	0	0	8	22		30	0	0	0	0	0		30	0	0	0	0	0		30	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 106-5
SEX : MALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	Occult blood −	±	+	2+	3+	CHI	Urobilinogen ±	+	2+	3+	4+	CHI
Control	39	39	0	0	0	0		39	0	0	0	0	
50 ppm	36	36	0	0	0	0		36	0	0	0	0	
100 ppm	33	29	4	0	0	0	*	33	0	0	0	0	
200 ppm	30	30	0	0	0	0		30	0	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

APPENDIX F 2

URINALYSIS: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 106-5
SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	pH 5.0	6.0	6.5	7.0	7.5	8.0	8.5	CHI	Protein −	±	+	2+	3+	4+	CHI	Glucose −	±	+	2+	3+	4+	CHI	Ketone body −	±	+	2+	3+	4+	CHI	Bilirubin −	+	2+	3+	CHI
Control	38	0	4	5	11	13	5	0		0	0	1	2	12	23		38	0	0	0	0	0		37	1	0	0	0	0		38	0	0	0	
50 ppm	40	0	2	3	8	21	6	0		0	1	3	9	8	19		40	0	0	0	0	0		40	0	0	0	0	0		40	0	0	0	
100 ppm	45	0	3	6	9	14	12	1		0	7	15	9	8	6	**	45	0	0	0	0	0		45	0	0	0	0	0		45	0	0	0	
200 ppm	44	0	5	6	12	14	6	1		0	15	12	9	7	1	**	44	0	0	0	0	0		44	0	0	0	0	0		44	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

(HCL101)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
SAMPLING DATE : 106-5
SEX : FEMALE REPORT TYPE : A1

URINALYSIS

Group Name	NO. of Animals	Occult blood −	±	+	2+	3+	CHI	Urobilinogen ±	+	2+	3+	4+	CHI
Control	38	37	1	0	0	0		38	0	0	0	0	
50 ppm	40	40	0	0	0	0		40	0	0	0	0	
100 ppm	45	45	0	0	0	0		45	0	0	0	0	
200 ppm	44	43	0	1	0	0		44	0	0	0	0	

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of CHI SQUARE

APPENDIX G 1

GROSS FINDINGS: SUMMARY, RAT: MALE: ALL ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
skin/app	nodule		1 (2)	2 (4)	7 (14)	3 (6)
subcutis	mass		6 (12)	5 (10)	11 (22)	4 (8)
nasal cavit	nodule		0 (0)	0 (0)	0 (0)	1 (2)
lung	red		0 (0)	1 (2)	1 (2)	1 (2)
	white zone		0 (0)	0 (0)	1 (2)	0 (0)
	brown zone		1 (2)	0 (0)	0 (0)	0 (0)
	hemorrhage		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		0 (0)	3 (6)	5 (10)	2 (4)
	cyst		0 (0)	0 (0)	1 (2)	0 (0)
	voluminus		0 (0)	1 (2)	0 (0)	0 (0)
lymph node	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	1 (2)	0 (0)
thymus	enlarged		0 (0)	1 (2)	0 (0)	0 (0)
spleen	enlarged		4 (8)	3 (6)	2 (4)	3 (6)
	white zone		0 (0)	0 (0)	1 (2)	1 (2)
	nodule		0 (0)	1 (2)	1 (2)	0 (0)
	deformed		1 (2)	2 (4)	2 (4)	1 (2)
heart	turbid		0 (0)	0 (0)	1 (2)	0 (0)
	white zone		0 (0)	0 (0)	0 (0)	1 (2)
salivary gl	nodule		0 (0)	0 (0)	0 (0)	1 (2)
forestomach	ulcer		1 (2)	2 (4)	0 (0)	1 (2)
gl stomach	ulcer		1 (2)	1 (2)	0 (0)	0 (0)

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
stomach	nodule		0 (0)	0 (0)	0 (0)	1 (2)
	ulcer		0 (0)	0 (0)	0 (0)	1 (2)
small intes	gas		0 (0)	0 (0)	0 (0)	1 (2)
cecum	nodule		0 (0)	1 (2)	0 (0)	0 (0)
	cyst		0 (0)	0 (0)	0 (0)	1 (2)
large intes	nodule		0 (0)	0 (0)	1 (2)	0 (0)
liver	enlarged		0 (0)	1 (2)	0 (0)	0 (0)
	white patch		0 (0)	1 (2)	0 (0)	0 (0)
	white zone		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		0 (0)	3 (6)	1 (2)	3 (6)
	cyst		0 (0)	0 (0)	1 (2)	0 (0)
	rough		1 (2)	0 (0)	1 (2)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (2)
	herniation		0 (0)	1 (2)	2 (4)	1 (2)
pancreas	nodule		2 (4)	0 (0)	0 (0)	1 (2)
kidney	nodule		0 (0)	2 (4)	0 (0)	0 (0)
	granular		39 (78)	40 (80)	41 (82)	38 (76)
	hydronephrosis		1 (2)	0 (0)	0 (0)	0 (0)
urin bladd	urine:marked retention		1 (2)	0 (0)	0 (0)	3 (6)
	urine:red		1 (2)	1 (2)	0 (0)	0 (0)
pituitary	enlarged		8 (16)	2 (4)	5 (10)	5 (10)
	white zone		0 (0)	0 (0)	1 (2)	0 (0)

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
pituitary	red zone		2 (4)	1 (2)	0 (0)	0 (0)
	nodule		8 (16)	4 (8)	5 (10)	3 (6)
	cyst		1 (2)	0 (0)	0 (0)	0 (0)
thyroid	enlarged		2 (4)	3 (6)	2 (4)	3 (6)
	nodule		0 (0)	0 (0)	0 (0)	1 (2)
adrenal	enlarged		0 (0)	3 (6)	1 (2)	3 (6)
testis	atrophic		3 (6)	3 (6)	4 (8)	2 (4)
	yellow		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		40 (80)	44 (88)	44 (88)	43 (86)
semin ves	nodule		0 (0)	0 (0)	0 (0)	1 (2)
prostate	nodule		1 (2)	0 (0)	0 (0)	0 (0)
prep/cli gl	nodule		0 (0)	0 (0)	2 (4)	1 (2)
brain	hemorrhage		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		1 (2)	0 (0)	0 (0)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (2)
	soft		0 (0)	0 (0)	0 (0)	1 (2)
spinal cord	red zone		0 (0)	1 (2)	0 (0)	0 (0)
eye	turbid		0 (0)	0 (0)	0 (0)	1 (2)
	white		2 (4)	1 (2)	1 (2)	0 (0)
Zymbal gl	nodule		1 (2)	1 (2)	3 (6)	2 (4)
muscle	nodule		1 (2)	1 (2)	0 (0)	1 (2)
pleura	nodule		0 (0)	1 (2)	0 (0)	0 (0)

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
mediastinum	nodule		0 (0)	0 (0)	0 (0)	1 (2)
	mass		0 (0)	1 (2)	0 (0)	0 (0)
peritoneum	nodule		1 (2)	2 (4)	1 (2)	3 (6)
retroperit	cyst		0 (0)	0 (0)	0 (0)	1 (2)
abdominal c	mass		0 (0)	0 (0)	0 (0)	1 (2)
	ascites		1 (2)	1 (2)	1 (2)	4 (8)
mesenterium	nodule		0 (0)	0 (0)	0 (0)	1 (2)
thoracic ca	transparent		0 (0)	0 (0)	1 (2)	0 (0)
	pleural fluid		0 (0)	3 (6)	2 (4)	2 (4)
other	hindlimb:nodule		1 (2)	1 (2)	0 (0)	0 (0)
	lower jaw:nodule		0 (0)	1 (2)	0 (0)	0 (0)
whole body	anemic		0 (0)	1 (2)	1 (2)	0 (0)

APPENDIX G 2

GROSS FINDINGS: SUMMARY, RAT: MALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name NO. of Animals	Control 11 (%)	50 ppm 15 (%)	100 ppm 17 (%)	200 ppm 20 (%)
skin/app	nodule		1 (9)	1 (7)	1 (6)	0 (0)
subcutis	mass		0 (0)	2 (13)	4 (24)	2 (10)
nasal cavit	nodule		0 (0)	0 (0)	0 (0)	1 (5)
lung	red		0 (0)	1 (7)	1 (6)	1 (5)
	brown zone		1 (9)	0 (0)	0 (0)	0 (0)
	hemorrhage		0 (0)	1 (7)	0 (0)	0 (0)
	nodule		0 (0)	1 (7)	0 (0)	2 (10)
	voluminus		0 (0)	1 (7)	0 (0)	0 (0)
lymph node	enlarged		0 (0)	0 (0)	0 (0)	1 (5)
	nodule		0 (0)	0 (0)	1 (6)	0 (0)
spleen	enlarged		2 (18)	2 (13)	2 (12)	3 (15)
	white zone		0 (0)	0 (0)	1 (6)	1 (5)
	nodule		0 (0)	1 (7)	0 (0)	0 (0)
	deformed		0 (0)	0 (0)	1 (6)	0 (0)
heart	turbid		0 (0)	0 (0)	1 (6)	0 (0)
	white zone		0 (0)	0 (0)	0 (0)	1 (5)
salivary gl	nodule		0 (0)	0 (0)	0 (0)	1 (5)
forestomach	ulcer		1 (9)	2 (13)	0 (0)	0 (0)
gl stomach	ulcer		1 (9)	1 (7)	0 (0)	0 (0)
stomach	ulcer		0 (0)	0 (0)	0 (0)	1 (5)
small intes	gas		0 (0)	0 (0)	0 (0)	1 (5)
liver	enlarged		0 (0)	1 (7)	0 (0)	0 (0)

Organ	Findings	Group Name NO. of Animals	Control 11 (%)	50 ppm 15 (%)	100 ppm 17 (%)	200 ppm 20 (%)
liver	nodule		0 (0)	2 (13)	0 (0)	2 (10)
	adhesion		0 (0)	0 (0)	0 (0)	1 (5)
	herniation		0 (0)	0 (0)	1 (6)	1 (5)
pancreas	nodule		2 (18)	0 (0)	0 (0)	1 (5)
kidney	nodule		0 (0)	1 (7)	0 (0)	0 (0)
	granular		4 (36)	7 (47)	10 (59)	9 (45)
	hydronephrosis		1 (9)	0 (0)	0 (0)	0 (0)
urin bladd	urine:marked retention		1 (9)	0 (0)	0 (0)	3 (15)
	urine:red		1 (9)	1 (7)	0 (0)	0 (0)
pituitary	enlarged		2 (18)	0 (0)	3 (18)	4 (20)
	nodule		1 (9)	0 (0)	1 (6)	1 (5)
thyroid	enlarged		0 (0)	0 (0)	1 (6)	1 (5)
	nodule		0 (0)	0 (0)	0 (0)	1 (5)
adrenal	enlarged		0 (0)	3 (20)	0 (0)	1 (5)
testis	atrophic		1 (9)	1 (7)	2 (12)	1 (5)
	nodule		4 (36)	10 (67)	13 (76)	13 (65)
semin ves	nodule		0 (0)	0 (0)	0 (0)	1 (5)
prostate	nodule		1 (9)	0 (0)	0 (0)	0 (0)
brain	hemorrhage		1 (9)	0 (0)	0 (0)	0 (0)
	nodule		1 (9)	0 (0)	0 (0)	0 (0)
	adhesion		0 (0)	0 (0)	0 (0)	1 (5)
	soft		0 (0)	0 (0)	0 (0)	1 (5)

Organ	Findings	Group Name NO. of Animals	Control 11 (%)	50 ppm 15 (%)	100 ppm 17 (%)	200 ppm 20 (%)
spinal cord	red zone		0 (0)	1 (7)	0 (0)	0 (0)
eye	turbid		0 (0)	0 (0)	0 (0)	1 (5)
	white		1 (9)	0 (0)	0 (0)	0 (0)
Zymbal gl	nodule		0 (0)	0 (0)	3 (18)	2 (10)
pleura	nodule		0 (0)	1 (7)	0 (0)	0 (0)
mediastinum	nodule		0 (0)	0 (0)	0 (0)	1 (5)
	mass		0 (0)	1 (7)	0 (0)	0 (0)
peritoneum	nodule		1 (9)	2 (13)	1 (6)	2 (10)
abdominal c	mass		0 (0)	0 (0)	0 (0)	1 (5)
	ascites		1 (9)	1 (7)	1 (6)	3 (15)
mesenterium	nodule		0 (0)	0 (0)	0 (0)	1 (5)
thoracic ca	transparent		0 (0)	0 (0)	1 (6)	0 (0)
	pleural fluid		0 (0)	2 (13)	2 (12)	2 (10)
other	hindlimb:nodule		0 (0)	1 (7)	0 (0)	0 (0)
whole body	anemic		0 (0)	1 (7)	0 (0)	0 (0)

APPENDIX G 3

GROSS FINDINGS: SUMMARY, RAT : MALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

Organ	Findings	Group Name NO. of Animals	Control 39 (%)	50 ppm 35 (%)	100 ppm 33 (%)	200 ppm 30 (%)
skin/app	nodule		0 (0)	1 (3)	6 (18)	3 (10)
subcutis	mass		6 (15)	3 (9)	7 (21)	2 (7)
lung	white zone		0 (0)	0 (0)	1 (3)	0 (0)
	nodule		0 (0)	2 (6)	5 (15)	0 (0)
	cyst		0 (0)	0 (0)	1 (3)	0 (0)
thymus	enlarged		0 (0)	1 (3)	0 (0)	0 (0)
spleen	enlarged		2 (5)	1 (3)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (3)	0 (0)
	deformed		1 (3)	2 (6)	1 (3)	1 (3)
forestomach	ulcer		0 (0)	0 (0)	0 (0)	1 (3)
stomach	nodule		0 (0)	0 (0)	0 (0)	1 (3)
cecum	nodule		0 (0)	1 (3)	0 (0)	0 (0)
	cyst		0 (0)	0 (0)	0 (0)	1 (3)
large intes	nodule		0 (0)	0 (0)	1 (3)	0 (0)
liver	white patch		0 (0)	1 (3)	0 (0)	0 (0)
	white zone		0 (0)	0 (0)	0 (0)	1 (3)
	nodule		0 (0)	1 (3)	1 (3)	1 (3)
	cyst		0 (0)	0 (0)	1 (3)	0 (0)
	rough		1 (3)	0 (0)	1 (3)	0 (0)
	herniation		0 (0)	1 (3)	1 (3)	0 (0)
kidney	nodule		0 (0)	1 (3)	0 (0)	0 (0)
	granular		35 (90)	33 (94)	31 (94)	29 (97)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

Organ	Findings	Group Name / NO. of Animals	Control 39 (%)	50 ppm 35 (%)	100 ppm 33 (%)	200 ppm 30 (%)
pituitary	enlarged		6 (15)	2 (6)	2 (6)	1 (3)
	white zone		0 (0)	0 (0)	1 (3)	0 (0)
	red zone		2 (5)	1 (3)	0 (0)	0 (0)
	nodule		7 (18)	4 (11)	4 (12)	2 (7)
	cyst		1 (3)	0 (0)	0 (0)	0 (0)
thyroid	enlarged		2 (5)	3 (9)	1 (3)	2 (7)
adrenal	enlarged		0 (0)	0 (0)	1 (3)	2 (7)
testis	atrophic		2 (5)	2 (6)	2 (6)	1 (3)
	yellow		0 (0)	0 (0)	1 (3)	0 (0)
	nodule		36 (92)	34 (97)	31 (94)	30 (100)
prep/cli gl	nodule		0 (0)	0 (0)	2 (6)	1 (3)
eye	white		1 (3)	1 (3)	1 (3)	0 (0)
Zymbal gl	nodule		1 (3)	1 (3)	0 (0)	0 (0)
muscle	nodule		1 (3)	1 (3)	0 (0)	1 (3)
peritoneum	nodule		0 (0)	0 (0)	0 (0)	1 (3)
retroperit	cyst		0 (0)	0 (0)	0 (0)	1 (3)
abdominal c	ascites		0 (0)	0 (0)	0 (0)	1 (3)
thoracic ca	pleural fluid		0 (0)	1 (3)	0 (0)	0 (0)
other	hindlimb:nodule		1 (3)	0 (0)	0 (0)	0 (0)
	lower jaw:nodule		0 (0)	1 (3)	0 (0)	0 (0)
whole body	anemic		0 (0)	0 (0)	1 (3)	0 (0)

APPENDIX G 4

GROSS FINDINGS: SUMMARY, RAT: FEMALE: ALL ANIMALS

(2-YEAR STUDY)

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
skin/app	nodule		0 (0)	0 (0)	1 (2)	0 (0)
subcutis	edema		0 (0)	1 (2)	0 (0)	0 (0)
	jaundice		1 (2)	0 (0)	1 (2)	0 (0)
	mass		9 (18)	10 (20)	12 (24)	8 (16)
lung	red		2 (4)	0 (0)	0 (0)	0 (0)
	red zone		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		2 (4)	0 (0)	0 (0)	1 (2)
lymph node	enlarged		3 (6)	0 (0)	0 (0)	1 (2)
thymus	enlarged		0 (0)	1 (2)	0 (0)	0 (0)
spleen	enlarged		4 (8)	5 (10)	3 (6)	2 (4)
	deformed		0 (0)	1 (2)	0 (0)	0 (0)
forestomach	ulcer		1 (2)	0 (0)	0 (0)	1 (2)
liver	pale		0 (0)	0 (0)	0 (0)	1 (2)
	white zone		2 (4)	1 (2)	0 (0)	0 (0)
	red patch		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		1 (2)	0 (0)	0 (0)	0 (0)
	rough		2 (4)	0 (0)	0 (0)	0 (0)
	granular		0 (0)	0 (0)	1 (2)	0 (0)
	nodular		0 (0)	0 (0)	1 (2)	0 (0)
	herniation		3 (6)	1 (2)	1 (2)	3 (6)
	accentuation of lobular structure		1 (2)	0 (0)	0 (0)	0 (0)
kidney	white zone		1 (2)	0 (0)	0 (0)	0 (0)

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
kidney	nodule		0 (0)	0 (0)	0 (0)	1 (2)
	cyst		0 (0)	2 (4)	0 (0)	1 (2)
	deformed		1 (2)	0 (0)	0 (0)	0 (0)
	granular		17 (34)	16 (32)	8 (16)	4 (8)
urin bladd	urine:marked retention		0 (0)	1 (2)	0 (0)	0 (0)
pituitary	enlarged		10 (20)	10 (20)	9 (18)	7 (14)
	white zone		0 (0)	1 (2)	0 (0)	0 (0)
	red zone		5 (10)	2 (4)	3 (6)	1 (2)
	nodule		10 (20)	8 (16)	10 (20)	8 (16)
thyroid	enlarged		1 (2)	0 (0)	1 (2)	0 (0)
	nodule		0 (0)	1 (2)	1 (2)	0 (0)
adrenal	enlarged		1 (2)	0 (0)	0 (0)	1 (2)
ovary	enlarged		0 (0)	0 (0)	0 (0)	2 (4)
	cyst		0 (0)	2 (4)	0 (0)	0 (0)
uterus	atrophic		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		5 (10)	8 (16)	6 (12)	6 (12)
	cyst		2 (4)	0 (0)	0 (0)	0 (0)
vagina	nodule		0 (0)	0 (0)	0 (0)	1 (2)
prep/cli gl	nodule		0 (0)	0 (0)	2 (4)	0 (0)
brain	red zone		0 (0)	1 (2)	0 (0)	0 (0)
	black zone		1 (2)	0 (0)	0 (0)	0 (0)
	hemorrhage		0 (0)	0 (0)	0 (0)	1 (2)

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	50 ppm 50 (%)	100 ppm 50 (%)	200 ppm 50 (%)
spinal cord	red zone		0 (0)	1 (2)	0 (0)	0 (0)
eye	white		3 (6)	2 (4)	3 (6)	1 (2)
peritoneum	nodule		0 (0)	0 (0)	1 (2)	0 (0)
retroperit	mass		2 (4)	0 (0)	0 (0)	0 (0)
abdominal c	hemorrhage		0 (0)	0 (0)	1 (2)	0 (0)
	ascites		1 (2)	0 (0)	0 (0)	1 (2)
thoracic ca	pleural fluid		1 (2)	1 (2)	0 (0)	2 (4)
other	forelimb:nodule		0 (0)	0 (0)	1 (2)	0 (0)
	hindlimb:nodule		1 (2)	0 (0)	1 (2)	0 (0)
whole body	anemic		0 (0)	2 (4)	0 (0)	1 (2)

APPENDIX G 5

GROSS FINDINGS: SUMMARY, RAT: FEMALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

Organ	Findings	Group Name NO. of Animals	Control 12 (%)	50 ppm 10 (%)	100 ppm 5 (%)	200 ppm 6 (%)
skin/app	nodule		0 (0)	0 (0)	1 (20)	0 (0)
subcutis	edema		0 (0)	1 (10)	0 (0)	0 (0)
	jaundice		1 (8)	0 (0)	1 (20)	0 (0)
	mass		1 (8)	3 (30)	1 (20)	2 (33)
lung	red		2 (17)	0 (0)	0 (0)	0 (0)
	red zone		0 (0)	1 (10)	0 (0)	0 (0)
	nodule		2 (17)	0 (0)	0 (0)	1 (17)
lymph node	enlarged		3 (25)	0 (0)	0 (0)	1 (17)
thymus	enlarged		0 (0)	1 (10)	0 (0)	0 (0)
spleen	enlarged		4 (33)	5 (50)	1 (20)	1 (17)
	deformed		0 (0)	1 (10)	0 (0)	0 (0)
forestomach	ulcer		1 (8)	0 (0)	0 (0)	1 (17)
liver	pale		0 (0)	0 (0)	0 (0)	1 (17)
	white zone		2 (17)	0 (0)	0 (0)	0 (0)
	red patch		0 (0)	0 (0)	0 (0)	1 (17)
	rough		2 (17)	0 (0)	0 (0)	0 (0)
	granular		0 (0)	0 (0)	1 (20)	0 (0)
	herniation		0 (0)	1 (10)	0 (0)	0 (0)
kidney	white zone		1 (8)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	0 (0)	1 (17)
	deformed		1 (8)	0 (0)	0 (0)	0 (0)
	granular		0 (0)	0 (0)	2 (40)	0 (0)

Organ	Findings	Group Name NO. of Animals	Control 12 (%)	50 ppm 10 (%)	100 ppm 5 (%)	200 ppm 6 (%)
urin bladd	urine:marked retention		0 (0)	1 (10)	0 (0)	0 (0)
pituitary	enlarged		4 (33)	2 (20)	3 (60)	1 (17)
	red zone		1 (8)	1 (10)	1 (20)	0 (0)
thyroid	enlarged		1 (8)	0 (0)	0 (0)	0 (0)
adrenal	enlarged		1 (8)	0 (0)	0 (0)	0 (0)
ovary	enlarged		0 (0)	0 (0)	0 (0)	1 (17)
uterus	atrophic		0 (0)	1 (10)	0 (0)	0 (0)
	nodule		3 (25)	1 (10)	1 (20)	1 (17)
vagina	nodule		0 (0)	0 (0)	0 (0)	1 (17)
brain	red zone		0 (0)	1 (10)	0 (0)	0 (0)
	black zone		1 (8)	0 (0)	0 (0)	0 (0)
	hemorrhage		0 (0)	0 (0)	0 (0)	1 (17)
spinal cord	red zone		0 (0)	1 (10)	0 (0)	0 (0)
eye	white		0 (0)	0 (0)	0 (0)	1 (17)
peritoneum	nodule		0 (0)	0 (0)	1 (20)	0 (0)
retroperit	mass		2 (17)	0 (0)	0 (0)	0 (0)
abdominal c	hemorrhage		0 (0)	0 (0)	1 (20)	0 (0)
	ascites		1 (8)	0 (0)	0 (0)	1 (17)
thoracic ca	pleural fluid		1 (8)	1 (10)	0 (0)	2 (33)
other	hindlimb:nodule		1 (8)	0 (0)	0 (0)	0 (0)
whole body	anemic		0 (0)	2 (20)	0 (0)	1 (17)

APPENDIX G 6

GROSS FINDINGS: SUMMARY, RAT : FEMALE : SACRIFICED ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

Organ	Findings	Group Name NO. of Animals	Control 38 (%)	50 ppm 40 (%)	100 ppm 45 (%)	200 ppm 44 (%)
subcutis	mass		8 (21)	7 (18)	11 (24)	6 (14)
spleen	enlarged		0 (0)	0 (0)	2 (4)	1 (2)
liver	white zone		0 (0)	1 (3)	0 (0)	0 (0)
	nodule		1 (3)	0 (0)	0 (0)	0 (0)
	nodular		0 (0)	0 (0)	1 (2)	0 (0)
	herniation		3 (8)	0 (0)	1 (2)	3 (7)
	accentuation of lobular structure		1 (3)	0 (0)	0 (0)	0 (0)
kidney	cyst		0 (0)	2 (5)	0 (0)	1 (2)
	granular		17 (45)	16 (40)	6 (13)	4 (9)
pituitary	enlarged		6 (16)	8 (20)	6 (13)	6 (14)
	white zone		0 (0)	1 (3)	0 (0)	0 (0)
	red zone		4 (11)	1 (3)	2 (4)	1 (2)
	nodule		10 (26)	8 (20)	10 (22)	8 (18)
thyroid	enlarged		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		0 (0)	1 (3)	1 (2)	0 (0)
adrenal	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
ovary	enlarged		0 (0)	0 (0)	0 (0)	1 (2)
	cyst		0 (0)	2 (5)	0 (0)	0 (0)
uterus	nodule		2 (5)	7 (18)	5 (11)	5 (11)
	cyst		2 (5)	0 (0)	0 (0)	0 (0)
prep/cli gl	nodule		0 (0)	0 (0)	2 (4)	0 (0)
eye	white		3 (8)	2 (5)	3 (7)	0 (0)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

Organ	Findings	Group Name / NO. of Animals	Control 38 (%)	50 ppm 40 (%)	100 ppm 45 (%)	200 ppm 44 (%)
other	forelimb:nodule		0 (0)	0 (0)	1 (2)	0 (0)
	hindlimb:nodule		0 (0)	0 (0)	1 (2)	0 (0)

APPENDIX H 1

ORGAN WEIGHT , ABSOLUTE: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

Group Name	NO. of Animals	Body Weight	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	39	392± 34	0.082± 0.014	4.730± 2.001	1.340± 0.395	1.543± 0.360	3.004± 0.279
50 ppm	35	403± 32	0.089± 0.028	5.150± 2.230	1.307± 0.193	1.581± 0.384	3.220± 0.439
100 ppm	33	385± 31	0.091± 0.024	6.269± 3.664	1.354± 0.173	1.540± 0.172	3.365± 0.416**
200 ppm	30	377± 51	0.108± 0.087	6.200± 2.028**	1.290± 0.147	1.649± 0.541	3.172± 0.356

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE
UNIT: g

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

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	39	1.403±	1.868	12.744±	1.741	2.016±	0.061
50 ppm	35	1.279±	0.882	13.940±	1.692**	1.994±	0.051
100 ppm	33	1.143±	0.266	14.574±	1.623**	1.970±	0.059**
200 ppm	30	1.082±	0.356	14.473±	3.532**	1.898±	0.176**

Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX H 2

ORGAN WEIGHT , ABSOLUTE: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

Group Name	NO. of Animals	Body Weight	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	38	288± 43	0.076± 0.009	0.128± 0.020	0.937± 0.071	1.073± 0.132	2.075± 0.201
50 ppm	40	302± 34	0.078± 0.007	0.175± 0.253	0.929± 0.072	1.073± 0.087	2.026± 0.163
100 ppm	45	293± 31	0.074± 0.008	0.132± 0.023	0.943± 0.093	1.082± 0.161	1.912± 0.166**
200 ppm	44	279± 31	0.102± 0.179	0.809± 4.479	0.903± 0.072	1.101± 0.335	1.863± 0.155**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

(HCL040)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: g

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

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	38	0.589±	0.277	7.973±	1.604	1.810±	0.036
50 ppm	40	0.638±	0.342	7.942±	1.381	1.807±	0.038
100 ppm	45	0.752±	0.938	7.476±	1.265	1.820±	0.046
200 ppm	44	0.732±	1.350	7.550±	1.172	1.779±	0.053**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX I 1

ORGAN WEIGHT, RELATIVE: SUMMARY, RAT: MALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	39	392± 34	0.021± 0.004	1.200± 0.479	0.343± 0.101	0.395± 0.093	0.772± 0.109
50 ppm	35	403± 32	0.022± 0.009	1.272± 0.534	0.328± 0.070	0.400± 0.139	0.807± 0.159
100 ppm	33	385± 31	0.024± 0.007	1.636± 1.033*	0.354± 0.057	0.403± 0.061	0.878± 0.127**
200 ppm	30	377± 51	0.031± 0.033	1.650± 0.510**	0.352± 0.088	0.458± 0.241	0.853± 0.123*

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	39	0.354± 0.453	3.261± 0.429	0.518± 0.053
50 ppm	35	0.323± 0.255	3.475± 0.466	0.498± 0.052
100 ppm	33	0.297± 0.068*	3.791± 0.370**	0.514± 0.035
200 ppm	30	0.286± 0.079	3.871± 0.896**	0.513± 0.089

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX I 2

ORGAN WEIGHT, RELATIVE: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	38	288± 43	0.027± 0.008	0.046± 0.010	0.335± 0.086	0.388± 0.142	0.737± 0.152
50 ppm	40	302± 34	0.026± 0.005	0.057± 0.075	0.310± 0.037	0.359± 0.048	0.677± 0.087*
100 ppm	45	293± 31	0.025± 0.003	0.045± 0.008	0.324± 0.037	0.372± 0.071	0.655± 0.050**
200 ppm	44	279± 31	0.039± 0.081	0.275± 1.502	0.327± 0.047	0.402± 0.168	0.674± 0.094**

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	38	0.206± 0.086	2.812± 0.681	0.644± 0.123
50 ppm	40	0.214± 0.119	2.638± 0.424	0.606± 0.079*
100 ppm	45	0.262± 0.340	2.552± 0.368*	0.627± 0.061
200 ppm	44	0.283± 0.617	2.732± 0.554	0.644± 0.077

Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett

APPENDIX J 1

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 50				50 ppm 50				100 ppm 50				200 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Integumentary system/appandage]																		
skin/app		<50>																
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	inflammation		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)
	hyperplasia:epidermis		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)
	epidermal cyst		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
subcutis		<50>																
	abscess		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)
[Respiratory system]																		
nasal cavit		<50>																
	thrombus		1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	2 (4)	2 (4)	0 (0)	1 (2)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 50				50 ppm 50				100 ppm 50				200 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]																		
nasal cavit			<50>				<50>				<50>				<50>			
	eosinophilic change:olfactory epithelium		22 (44)	6 (12)	0 (0)	0 (0)	2 (4)	10 (20)	32 (64)	2 ** (4)	0 (0)	9 (18)	34 (68)	6 ** (12)	2 (4)	10 (20)	30 (60)	4 ** (8)
	inflammation:foreign body		12 (24)	6 (12)	0 (0)	0 (0)	21 (42)	1 (2)	0 (0)	0 * (0)	18 (36)	3 (6)	1 (2)	0 (0)	12 (24)	4 (8)	1 (2)	0 (0)
	respiratory metaplasia:olfactory epithelium		4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	necrosis:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
lung			<50>				<50>				<50>				<50>			
	congestion		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)
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammation		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplasia		2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	1 (2)	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 b : Number of animals with lesion
(c) c : b / a * 100
Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 50				50 ppm 50				100 ppm 50				200 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Hematopoietic system]																		
bone marrow			<50>				<50>				<50>				<50>			
	necrosis		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)
	fibrosis		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)
	increased hematopoiesis		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)
	granulopoiesis:increased		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)
lymph node			<50>				<50>				<50>				<50>			
	lymphadenitis		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
spleen			<50>				<50>				<50>				<50>			
	fibrosis		3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	3 (6)	0 (0)	0 (0)	2 (4)	2 (4)	1 (2)	0 (0)	3 (6)	2 (4)	0 (0)	0 (0)
	extramedullary hematopoiesis		5 (10)	0 (0)	1 (2)	0 (0)	4 (8)	1 (2)	2 (4)	0 (0)	5 (10)	2 (4)	0 (0)	0 (0)	1 (2)	4 (8)	1 (2)	0 (0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																		
heart			<50>				<50>				<50>				<50>			
	thrombus		0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
	mineralization		1	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis		8	0	0	0	9	0	0	0	10	0	0	0	11	0	0	0
			(16)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(22)	(0)	(0)	(0)
[Digestive system]																		
oral cavity			<50>				<50>				<50>				<50>			
	abscess		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)
tongue			<50>				<50>				<50>				<50>			
	arteritis		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
esophagus			<50>				<50>				<50>				<50>			
	inflammation		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 50				50 ppm 50				100 ppm 50				200 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
stomach			<50>				<50>				<50>				<50>			
	mineralization		3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	2 (4)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	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)	1 (2)	0 (0)	0 (0)	0 (0)
	ulcer:forestomach		1 (2)	4 (8)	0 (0)	0 (0)	1 (2)	4 (8)	0 (0)	0 (0)	1 (2)	4 (8)	0 (0)	0 (0)	2 (4)	9 (18)	0 (0)	0 (0)
	hyperplasia:forestomach		0 (0)	0 (0)	1 (2)	0 (0)	1 (2)	0 (0)	1 (2)	0 (0)	1 (2)	2 (4)	2 (4)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)
	edema:forestomach		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	ulcer:glandular stomach		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)
liver			<50>				<50>				<50>				<50>			
	herniation		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	angiectasis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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>			
	clear cell focus		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)
	acidophilic cell focus		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	basophilic cell focus		14 (28)	0 (0)	0 (0)	0 (0)	10 (20)	1 (2)	0 (0)	0 (0)	17 (34)	2 (4)	0 (0)	0 (0)	15 (30)	2 (4)	0 (0)	0 (0)
	spongiosis hepatis		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		43 (86)	1 (2)	1 (2)	0 (0)	38 (76)	1 (2)	0 (0)	0 (0)	36 (72)	0 (0)	0 (0)	0 (0)	39 (78)	3 (6)	0 (0)	0 (0)
pancreas			<50>				<50>				<50>				<50>			
	atrophy		5 (10)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	1 (2)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)
	hyperplasia:acinar cell		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)
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	chronic nephropathy		1 (2)	3 (6)	31 (62)	12 (24)	0 (0)	1 (2)	36 (72)	10 (20)	1 (2)	5 (10)	30 (60)	14 (28)	2 (4)	2 (4)	31 (62)	12 (24)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 50				50 ppm 50				100 ppm 50				200 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Urinary system]																		
kidney		<50>																
	hydronephrosis		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)
[Endocrine system]																		
pituitary		<50>																
	hyperplasia		4 (8)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)
	Rathke pouch		3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	8 (16)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
thyroid		<50>																
	C-cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	focal follicular cell hyperplasia		1 (2)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
adrenal		<50>																
	fatty change		2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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			<50>				<50>				<50>				<50>			
	hyperplasia:medulla		5	0	0	0	3	1	0	0	4	0	0	0	5	0	0	0
			(10)	(0)	(0)	(0)	(6)	(2)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
[Reproductive system]																		
testis			<50>				<50>				<50>				<50>			
	atrophy		6	0	0	0	5	0	0	0	5	0	0	0	4	0	0	0
			(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
epididymis			<50>				<50>				<50>				<50>			
	spermatogenic granuloma		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
semin ves			<50>				<50>				<50>				<50>			
	inflammation		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
prostate			<50>				<50>				<50>				<50>			
	inflammation		15	1	0	0	18	1	0	0	17	2	0	0	9	0	0	0
			(30)	(2)	(0)	(0)	(36)	(2)	(0)	(0)	(34)	(4)	(0)	(0)	(18)	(0)	(0)	(0)
	hyperplasia		5	0	0	0	4	0	0	0	10	0	0	0	9	0	0	0
			(10)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(20)	(0)	(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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
mammary gl			<50>				<50>				<50>				<50>			
	galactocele		11	0	0	0	11	0	0	0	11	0	0	0	5	0	0	0
			(22)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(22)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
[Nervous system]																		
brain			<50>				<50>				<50>				<50>			
	hemorrhage		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
[Special sense organs/appandage]																		
eye			<50>				<50>				<50>				<50>			
	cataract		2	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)	(0)	(0)	(0)	(0)
	keratitis		0	0	0	0	1	0	0	0	5	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(10)	(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

APPENDIX J 2

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 11				50 ppm 15				100 ppm 17				200 ppm 20			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Integumentary system/appandage]																		
skin/app			<11>				<15>				<17>				<20>			
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
	epidermal cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
[Respiratory system]																		
nasal cavit			<11>				<15>				<17>				<20>			
	thrombus		1 (9)	2 (18)	0 (0)	0 (0)	1 (7)	2 (13)	1 (7)	0 (0)	1 (6)	0 (0)	1 (6)	0 (0)	0 (0)	1 (5)	1 (5)	0 (0)
	eosinophilic change:olfactory epithelium		4 (36)	0 (0)	0 (0)	0 (0)	2 (13)	4 (27)	4 (27)	1 * (7)	0 (0)	8 (47)	8 (47)	0 ** (0)	2 (10)	4 (20)	9 (45)	1 ** (5)
	inflammation:foreign body		2 (18)	2 (18)	0 (0)	0 (0)	7 (47)	0 (0)	0 (0)	0 (0)	7 (41)	2 (12)	1 (6)	0 (0)	5 (25)	3 (15)	1 (5)	0 (0)
	necrosis:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)
lung			<11>				<15>				<17>				<20>			
	congestion		0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	1 (5)	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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	11				15				17				20			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
lung			<11>				<15>				<17>				<20>			
	hemorrhage		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation		0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(6)	(6)	(0)	(0)	(5)	(0)	(0)	(0)
	bronchiolar-alveolar 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)	(12)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Hematopoietic system]																		
bone marrow			<11>				<15>				<17>				<20>			
	necrosis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	fibrosis		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	increased hematopoiesis		1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
			(9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	granulopoiesis:increased		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	11				15				17				20			
		Grade	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Hematopoietic system]																		
spleen			<11>				<15>				<17>				<20>			
	fibrosis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	extramedullary hematopoiesis		0 (0)	0 (0)	1 (9)	0 (0)	2 (13)	1 (7)	2 (13)	0 (0)	3 (18)	1 (6)	0 (0)	0 (0)	1 (5)	3 (15)	1 (5)	0 (0)
[Circulatory system]																		
heart			<11>				<15>				<17>				<20>			
	thrombus		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)
	mineralization		1 (9)	0 (0)	0 (0)	0 (0)	4 (27)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	myocardial fibrosis		1 (9)	0 (0)	0 (0)	0 (0)	5 (33)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	6 (30)	0 (0)	0 (0)	0 (0)
[Digestive system]																		
esophagus			<11>				<15>				<17>				<20>			
	inflammation		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	11				15				17				20			
		Grade	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
stomach			<11>				<15>				<17>				<20>			
	mineralization		3 (27)	0 (0)	0 (0)	0 (0)	4 (27)	2 (13)	0 (0)	0 (0)	4 (24)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)
	ulcer:forestomach		1 (9)	3 (27)	0 (0)	0 (0)	0 (0)	3 (20)	0 (0)	0 (0)	1 (6)	4 (24)	0 (0)	0 (0)	1 (5)	6 (30)	0 (0)	0 (0)
	hyperplasia:forestomach		0 (0)	0 (0)	1 (9)	0 (0)	1 (7)	0 (0)	1 (7)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)
	edema:forestomach		1 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
	ulcer:glandular stomach		0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
liver			<11>				<15>				<17>				<20>			
	herniation		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
	angiectasis		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 (5)	0 (0)	0 (0)	0 (0)
	basophilic cell focus		2 (18)	0 (0)	0 (0)	0 (0)	3 (20)	0 (0)	0 (0)	0 (0)	2 (12)	1 (6)	0 (0)	0 (0)	5 (25)	0 (0)	0 (0)	0 (0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 11				50 ppm 15				100 ppm 17				200 ppm 20			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
liver			<11>				<15>				<17>				<20>			
	bile duct hyperplasia		7 (64)	1 (9)	0 (0)	0 (0)	5 (33)	1 (7)	0 (0)	0 (0)	7 (41)	0 (0)	0 (0)	0 (0)	12 (60)	3 (15)	0 (0)	0 (0)
pancreas			<11>				<15>				<17>				<20>			
	atrophy		0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
[Urinary system]																		
kidney			<11>				<15>				<17>				<20>			
	chronic nephropathy		0 (0)	1 (9)	3 (27)	4 (36)	0 (0)	1 (7)	5 (33)	6 (40)	0 (0)	5 (29)	5 (29)	7 (41)	2 (10)	2 (10)	11 (55)	2 (10)
	hydronephrosis		1 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Endocrine system]																		
pituitary			<11>				<15>				<17>				<20>			
	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	2 (13)	0 (0)	0 (0)	0 (0)	1 (6)	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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	11				15				17				20			
		Grade	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Endocrine system]																		
pituitary			<11>				<15>				<17>				<20>			
	Rathke pouch		0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	2 (12)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)
thyroid			<11>				<15>				<17>				<20>			
	focal follicular cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
adrenal			<11>				<15>				<17>				<20>			
	fatty change		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)
	hyperplasia:medulla		0 (0)	0 (0)	0 (0)	0 (0)	3 (20)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Reproductive system]																		
testis			<11>				<15>				<17>				<20>			
	atrophy		2 (18)	0 (0)	0 (0)	0 (0)	2 (13)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	3 (15)	0 (0)	0 (0)	0 (0)
epididymis			<11>				<15>				<17>				<20>			
	spermatogenic granuloma		0 (0)	1 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 11				50 ppm 15				100 ppm 17				200 ppm 20			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Reproductive system]																		
semin ves			<11>				<15>				<17>				<20>			
	inflammation		1 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
prostate			<11>				<15>				<17>				<20>			
	inflammation		4 (36)	0 (0)	0 (0)	0 (0)	2 (13)	0 (0)	0 (0)	0 (0)	6 (35)	1 (6)	0 (0)	0 (0)	3 (15)	0 (0)	0 (0)	0 (0)
	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	1 (7)	0 (0)	0 (0)	0 (0)	3 (18)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
mammary gl			<11>				<15>				<17>				<20>			
	galactocele		2 (18)	0 (0)	0 (0)	0 (0)	2 (13)	0 (0)	0 (0)	0 (0)	5 (29)	0 (0)	0 (0)	0 (0)	3 (15)	0 (0)	0 (0)	0 (0)
[Nervous system]																		
brain			<11>				<15>				<17>				<20>			
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)
[Special sense organs/appandage]																		
eye			<11>				<15>				<17>				<20>			
	cataract		1 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	11				15				17				20			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appandage]																		
eye			<11>				<15>				<17>				<20>			
	keratitis		0	0	0	0	1	0	0	0	4	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(24)	(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 b : Number of animals with lesion
(c) c : b / a * 100
Significant difference : * : P ≦ 0.05 ** : P ≦ 0.01 Test of Chi Square

APPENDIX J 3

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 39				50 ppm 35				100 ppm 33				200 ppm 30			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Integumentary system/appandage]																		
skin/app			<39>				<35>				<33>				<30>			
	inflammation		1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia:epidermis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	epidermal cyst		1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
subcutis			<39>				<35>				<33>				<30>			
	abscess		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Respiratory system]																		
nasal cavit			<39>				<35>				<33>				<30>			
	thrombus		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	eosinophilic change:olfactory epithelium		18 (46)	6 (15)	0 (0)	0 (0)	0 (0)	6 (17)	28 (80)	1 ** (3)	0 (0)	1 (3)	26 (79)	6 ** (18)	0 (0)	6 (20)	21 (70)	3 ** (10)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	39				35				33				30			
		Grade	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]																		
nasal cavit			<39>				<35>				<33>				<30>			
	inflammation:foreign body		10 (26)	4 (10)	0 (0)	0 (0)	14 (40)	1 (3)	0 (0)	0 (0)	11 (33)	1 (3)	0 (0)	0 (0)	7 (23)	1 (3)	0 (0)	0 (0)
	respiratory metaplasia:olfactory epithelium		4 (10)	0 (0)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	4 (13)	0 (0)	0 (0)	0 (0)
	necrosis:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
lung			<39>				<35>				<33>				<30>			
	bronchiolar-alveolar cell hyperplasia		2 (5)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
[Hematopoietic system]																		
bone marrow			<39>				<35>				<33>				<30>			
	increased hematopoiesis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
lymph node			<39>				<35>				<33>				<30>			
	lymphadenitis		0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (6)	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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	39				35				33				30			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
spleen			<39>				<35>				<33>				<30>			
	fibrosis		3	0	0	0	3	3	0	0	1	1	1	0	3	2	0	0
			(8)	(0)	(0)	(0)	(9)	(9)	(0)	(0)	(3)	(3)	(3)	(0)	(10)	(7)	(0)	(0)
	extramedullary hematopoiesis		5	0	0	0	2	0	0	0	2	1	0	0	0	1	0	0
			(13)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(3)	(0)	(0)	(0)	(3)	(0)	(0)
[Circulatory system]																		
heart			<39>				<35>				<33>				<30>			
	thrombus		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis		7	0	0	0	4	0	0	0	7	0	0	0	5	0	0	0
			(18)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
[Digestive system]																		
oral cavity			<39>				<35>				<33>				<30>			
	abscess		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	39				35				33				30			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
[Digestive system]																		
tongue			<39>				<35>				<33>				<30>			
	arteritis		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)	(7)	(0)	(0)	(0)
stomach			<39>				<35>				<33>				<30>			
	mineralization		0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	basal 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)
	ulcer:forestomach		0	1	0	0	1	1	0	0	0	0	0	0	1	3	0	0
			(0)	(3)	(0)	(0)	(3)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(10)	(0)	(0)
	hyperplasia:forestomach		0	0	0	0	0	0	0	0	0	2	2	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(6)	(0)	(0)	(3)	(0)	(0)
	edema:forestomach		0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
liver			<39>				<35>				<33>				<30>			
	herniation		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 39				50 ppm 35				100 ppm 33				200 ppm 30			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
liver			<39>				<35>				<33>				<30>			
	clear cell focus		3 (8)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	acidophilic cell focus		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	basophilic cell focus		12 (31)	0 (0)	0 (0)	0 (0)	7 (20)	1 (3)	0 (0)	0 (0)	15 (45)	1 (3)	0 (0)	0 (0)	10 (33)	2 (7)	0 (0)	0 (0)
	spongiosis hepatis		1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		36 (92)	0 (0)	1 (3)	0 (0)	33 (94)	0 (0)	0 (0)	0 (0)	29 (88)	0 (0)	0 (0)	0 (0)	27 (90)	0 (0)	0 (0)	0 (0)
pancreas			<39>				<35>				<33>				<30>			
	atrophy		5 (13)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	1 (3)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)	4 (13)	0 (0)	0 (0)	0 (0)
	hyperplasia:acinar cell		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
[Urinary system]																		
kidney			<39>				<35>				<33>				<30>			
	chronic nephropathy		1 (3)	2 (5)	28 (72)	8 (21)	0 (0)	0 (0)	31 (89)	4 (11)	1 (3)	0 (0)	25 (76)	7 (21)	0 (0)	0 (0)	20 (67)	10 (33)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	39				35				33				30			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
pituitary			<39>				<35>				<33>				<30>			
	hyperplasia		4	0	0	0	3	0	0	0	6	0	0	0	5	0	0	0
			(10)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
	Rathke pouch		3	0	0	0	4	0	0	0	6	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
thyroid			<39>				<35>				<33>				<30>			
	C-cell hyperplasia		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal follicular cell hyperplasia		1	0	0	0	3	0	0	0	1	0	0	0	3	0	0	0
			(3)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
adrenal			<39>				<35>				<33>				<30>			
	fatty change		2	0	0	0	3	0	0	0	1	0	0	0	2	0	0	0
			(5)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	hyperplasia:medulla		5	0	0	0	0	1	0	0	3	0	0	0	5	0	0	0
			(13)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(9)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
[Reproductive system]																		
testis			<39>				<35>				<33>				<30>			
	atrophy		4	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0
			(10)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(6)	(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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	39				35				33				30			
		Grade	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Reproductive system]																		
prostate			<39>				<35>				<33>				<30>			
	inflammation		11	1	0	0	16	1	0	0	11	1	0	0	6	0	0	0
			(28)	(3)	(0)	(0)	(46)	(3)	(0)	(0)	(33)	(3)	(0)	(0)	(20)	(0)	(0)	(0)
	hyperplasia		5	0	0	0	3	0	0	0	7	0	0	0	8	0	0	0
			(13)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(27)	(0)	(0)	(0)
mammary gl			<39>				<35>				<33>				<30>			
	galactocele		9	0	0	0	9	0	0	0	6	0	0	0	2	0	0	0
			(23)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
[Special sense organs/appandage]																		
eye			<39>				<35>				<33>				<30>			
	cataract		1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	keratitis		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)

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 J 4

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																		
skin/app			<50>				<50>				<50>				<50>			
	epidermal cyst		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Respiratory system]																		
nasal cavit			<50>				<50>				<50>				<50>			
	thrombus		0	2	0	0	0	1	0	0	0	2	0	0	0	0	1	0
			(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(2)	(0)
	eosinophilic change:olfactory epithelium		24	11	6	0	1	3	32	14 **	0	3	39	8 **	0	1	35	13 **
			(48)	(22)	(12)	(0)	(2)	(6)	(64)	(28)	(0)	(6)	(78)	(16)	(0)	(2)	(70)	(26)
	inflammation:foreign body		6	0	0	0	9	0	0	0	4	0	0	0	3	0	0	0
			(12)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	respiratory metaplasia:olfactory 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)
	inflammation:transitional epithelium		0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	necrosis:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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]																		
lung			<50>				<50>				<50>				<50>			
	congestion		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)
	osseous metaplasia		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)
	accumulation of foamy cells		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)
	bronchiolar-alveolar cell hyperplasia		0	0	0	0	1	0	0	0	3	0	0	0	3	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
[Hematopoietic system]																		
bone marrow			<50>				<50>				<50>				<50>			
	granulation		4	2	0	0	2	0	0	0	4	0	0	0	4	1	0	0
			(8)	(4)	(0)	(0)	(4)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(2)	(0)	(0)
	xanthogranuloma		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)
lymph node			<50>				<50>				<50>				<50>			
	lymphadenitis		1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
spleen			<50>				<50>				<50>				<50>			
	fibrosis		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)
	extramedullary hematopoiesis		4	3	0	0	5	4	1	0	6	1	0	0	4	1	0	0
			(8)	(6)	(0)	(0)	(10)	(8)	(2)	(0)	(12)	(2)	(0)	(0)	(8)	(2)	(0)	(0)
[Circulatory system]																		
heart			<50>				<50>				<50>				<50>			
	thrombus		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)
	mineralization		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)
	myocardial fibrosis		3	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
[Digestive system]																		
stomach			<50>				<50>				<50>				<50>			
	mineralization		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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>			
	ulcer:forestomach		0	3	0	0	0	1	0	0	0	0	0	0	1	0	0	0
			(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	hyperplasia:forestomach		0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach		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)
	ulcer:glandular stomach		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)
large intes			<50>				<50>				<50>				<50>			
	erosion		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)
liver			<50>				<50>				<50>				<50>			
	herniation		3	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	necrosis:central		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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>			
	granulation		9	1	0	0	9	0	0	0	5	1	0	0	8	0	0	0
			(18)	(2)	(0)	(0)	(18)	(0)	(0)	(0)	(10)	(2)	(0)	(0)	(16)	(0)	(0)	(0)
	clear cell focus		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)
	basophilic cell focus		3	0	0	0	2	0	0	0	3	0	0	0	3	0	0	0
			(6)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	bile duct hyperplasia		4	0	0	0	4	0	0	0	6	0	0	0	4	0	0	0
			(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(8)	(0)	(0)	(0)
pancreas			<50>				<50>				<50>				<50>			
	atrophy		6	2	0	0	8	0	0	0	6	2	0	0	9	1	0	0
			(12)	(4)	(0)	(0)	(16)	(0)	(0)	(0)	(12)	(4)	(0)	(0)	(18)	(2)	(0)	(0)
	arteritis		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	infarct		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 50				50 ppm 50				100 ppm 50				200 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	chronic nephropathy		14 (28)	18 (36)	11 (22)	2 (4)	18 (36)	11 (22)	14 (28)	0 (0)	19 (38)	9 (18)	5 (10)	1 * (2)	22 (44)	3 (6)	2 (4)	0 ** (0)
	dilatation:tubular lumen		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)
	eosinophilic droplet:proximal tubule		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
[Endocrine system]																		
pituitary			<50>				<50>				<50>				<50>			
	hyperplasia		9 (18)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	8 (16)	0 (0)	0 (0)	0 (0)	10 (20)	0 (0)	0 (0)	0 (0)
	Rathke pouch		4 (8)	0 (0)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
thyroid			<50>				<50>				<50>				<49>			
	C-cell hyperplasia		4 (8)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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]																		
thyroid			<50>				<50>				<50>				<49>			
	focal follicular cell hyperplasia		0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
adrenal			<50>				<50>				<50>				<50>			
	fatty change		5	0	0	0	7	1	0	0	6	0	0	0	5	1	0	0
			(10)	(0)	(0)	(0)	(14)	(2)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(2)	(0)	(0)
	hyperplasia:medulla		1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
			(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
[Reproductive system]																		
ovary			<50>				<50>				<50>				<49>			
	atrophy		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	cyst		0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
uterus			<50>				<50>				<50>				<50>			
	dilatation		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)	(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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
mammary gl			<50>				<50>				<50>				<50>			
	galactocele		18	0	0	0	21	0	0	0	10	0	0	0	14	0	0	0
			(36)	(0)	(0)	(0)	(42)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(28)	(0)	(0)	(0)
[Special sense organs/appandage]																		
eye			<50>				<50>				<50>				<50>			
	cataract		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)
	keratitis		3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Musculoskeletal system]																		
bone			<50>				<50>				<50>				<50>			
	osteosclerosis		2	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0
			(4)	(0)	(0)	(0)	(8)	(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

APPENDIX J 5

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	12				10				5				6			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
nasal cavit			<12>				<10>				< 5>				< 6>			
	thrombus		0	1	0	0	0	1	0	0	0	2	0	0	0	0	1	0
			(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(17)	(0)
	eosinophilic change:olfactory epithelium		7	2	0	0	0	1	8	1 **	0	1	4	0 **	0	1	3	1 *
			(58)	(17)	(0)	(0)	(0)	(10)	(80)	(10)	(0)	(20)	(80)	(0)	(0)	(17)	(50)	(17)
	inflammation:foreign body		2	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0
			(17)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium		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)
	inflammation: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)	(17)	(0)	(0)	(0)
	necrosis:olfactory 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)	(17)	(0)	(0)	(0)
lung			<12>				<10>				< 5>				< 6>			
	congestion		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	bronchiolar-alveolar 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)	(17)	(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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 12				50 ppm 10				100 ppm 5				200 ppm 6			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Hematopoietic system]																		
lymph node			<12>				<10>				< 5>				< 6>			
	lymphadenitis		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)
spleen			<12>				<10>				< 5>				< 6>			
	extramedullary hematopoiesis		0	2	0	0	0	3	1	0	1	1	0	0	1	1	0	0
			(0)	(17)	(0)	(0)	(0)	(30)	(10)	(0)	(20)	(20)	(0)	(0)	(17)	(17)	(0)	(0)
[Circulatory system]																		
heart			<12>				<10>				< 5>				< 6>			
	thrombus		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Digestive system]																		
stomach			<12>				<10>				< 5>				< 6>			
	ulcer:forestomach		0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(25)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 12				50 ppm 10				100 ppm 5				200 ppm 6			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
stomach			<12>				<10>				< 5>				< 6>			
	hyperplasia:forestomach		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	erosion:glandular stomach		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	ulcer:glandular stomach		0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
large intes			<12>				<10>				< 5>				< 6>			
	erosion		0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
liver			<12>				<10>				< 5>				< 6>			
	necrosis:central		0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
pancreas			<12>				<10>				< 5>				< 6>			
	atrophy		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)
	arteritis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (20)	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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	12				10				5				6			
		Grade	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Urinary system]																		
kidney			<12>				<10>				< 5>				< 6>			
	chronic nephropathy		4 (33)	1 (8)	2 (17)	0 (0)	6 (60)	1 (10)	0 (0)	0 (0)	2 (40)	0 (0)	1 (20)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)
	dilatation:tubular lumen		0 (0)	0 (0)	0 (0)	0 (0)	1 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	eosinophilic droplet:proximal tubule		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)
[Endocrine system]																		
pituitary			<12>				<10>				< 5>				< 6>			
	hyperplasia		1 (8)	0 (0)	0 (0)	0 (0)	2 (20)	0 (0)	0 (0)	0 (0)	2 (40)	0 (0)	0 (0)	0 (0)	1 (17)	0 (0)	0 (0)	0 (0)
	Rathke pouch		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
adrenal			<12>				<10>				< 5>				< 6>			
	fatty change		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	12				10				5				6			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
adrenal			<12>				<10>				< 5>				< 6>			
	hyperplasia:medulla		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Reproductive system]																		
ovary			<12>				<10>				< 5>				< 6>			
	atrophy		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
mammary gl			<12>				<10>				< 5>				< 6>			
	galactocele		4	0	0	0	4	0	0	0	2	0	0	0	1	0	0	0
			(33)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(40)	(0)	(0)	(0)	(17)	(0)	(0)	(0)
[Special sense organs/appandage]																		
eye			<12>				<10>				< 5>				< 6>			
	cataract		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(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)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	12				10				5				6			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Musculoskeletal system]																		
bone			<12>				<10>				< 5>				< 6>			
	osteosclerosis		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(20)	(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 J 6

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY, RAT: FEMALE: SACRIFICED ANIMALS (2-YEAR STUDY)

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	38				40				45				44			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																		
skin/app			<38>				<40>				<45>				<44>			
	epidermal cyst		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Respiratory system]																		
nasal cavit			<38>				<40>				<45>				<44>			
	thrombus		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium		17	9	6	0	1	2	24	13 **	0	2	35	8 **	0	0	32	12 **
			(45)	(24)	(16)	(0)	(3)	(5)	(60)	(33)	(0)	(4)	(78)	(18)	(0)	(0)	(73)	(27)
	inflammation:foreign body		4	0	0	0	6	0	0	0	2	0	0	0	3	0	0	0
			(11)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:transitional epithelium		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
lung			<38>				<40>				<45>				<44>			
	osseous metaplasia		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 38				50 ppm 40				100 ppm 45				200 ppm 44			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]																		
lung			<38>				<40>				<45>				<44>			
	accumulation of foamy cells		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
	bronchiolar-alveolar cell hyperplasia		0	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0
			(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
[Hematopoietic system]																		
bone marrow			<38>				<40>				<45>				<44>			
	granulation		4	2	0	0	2	0	0	0	4	0	0	0	4	1	0	0
			(11)	(5)	(0)	(0)	(5)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(9)	(2)	(0)	(0)
	xanthogranuloma		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)
lymph node			<38>				<40>				<45>				<44>			
	lymphadenitis		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spleen			<38>				<40>				<45>				<44>			
	fibrosis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	38				40				45				44			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
spleen			<38>				<40>				<45>				<44>			
	extramedullary hematopoiesis		4	1	0	0	5	1	0	0	5	0	0	0	3	0	0	0
			(11)	(3)	(0)	(0)	(13)	(3)	(0)	(0)	(11)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
[Circulatory system]																		
heart			<38>				<40>				<45>				<44>			
	mineralization		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	myocardial fibrosis		1	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
[Digestive system]																		
stomach			<38>				<40>				<45>				<44>			
	mineralization		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:forestomach		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)	(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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 38				50 ppm 40				100 ppm 45				200 ppm 44			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
stomach			<38>				<40>				<45>				<44>			
	hyperplasia:forestomach		0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
liver			<38>				<40>				<45>				<44>			
	herniation		3 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)
	granulation		9 (24)	1 (3)	0 (0)	0 (0)	9 (23)	0 (0)	0 (0)	0 (0)	5 (11)	1 (2)	0 (0)	0 (0)	8 (18)	0 (0)	0 (0)	0 (0)
	clear cell focus		0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
	basophilic cell focus		3 (8)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		4 (11)	0 (0)	0 (0)	0 (0)	4 (10)	0 (0)	0 (0)	0 (0)	6 (13)	0 (0)	0 (0)	0 (0)	4 (9)	0 (0)	0 (0)	0 (0)
pancreas			<38>				<40>				<45>				<44>			
	atrophy		5 (13)	2 (5)	0 (0)	0 (0)	8 (20)	0 (0)	0 (0)	0 (0)	6 (13)	2 (4)	0 (0)	0 (0)	8 (18)	1 (2)	0 (0)	0 (0)

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

Organ	Findings	Group Name / No. of Animals on Study / Grade	Control 38				50 ppm 40				100 ppm 45				200 ppm 44			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Urinary system]																		
kidney			<38>				<40>				<45>				<44>			
	infarct		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)
	cyst		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	chronic nephropathy		10	17	9	2	12	10	14	0	17	9	4	0 **	22	3	2	0 **
			(26)	(45)	(24)	(5)	(30)	(25)	(35)	(0)	(38)	(20)	(9)	(0)	(50)	(7)	(5)	(0)
[Endocrine system]																		
pituitary			<38>				<40>				<45>				<44>			
	hyperplasia		8	0	0	0	5	0	0	0	6	0	0	0	9	0	0	0
			(21)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(20)	(0)	(0)	(0)
	Rathke pouch		3	0	0	0	6	0	0	0	3	0	0	0	3	0	0	0
			(8)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(7)	(0)	(0)	(0)
thyroid			<38>				<40>				<45>				<43>			
	C-cell hyperplasia		4	0	0	0	4	0	0	0	5	0	0	0	2	0	0	0
			(11)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(11)	(0)	(0)	(0)	(5)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	38				40				45				44			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
thyroid			<38>				<40>				<45>				<43>			
	focal follicular cell hyperplasia		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)
adrenal			<38>				<40>				<45>				<44>			
	fatty change		4	0	0	0	7	1	0	0	6	0	0	0	5	1	0	0
			(11)	(0)	(0)	(0)	(18)	(3)	(0)	(0)	(13)	(0)	(0)	(0)	(11)	(2)	(0)	(0)
	hyperplasia:medulla		1	0	0	0	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)
[Reproductive system]																		
ovary			<38>				<40>				<45>				<43>			
	atrophy		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)
	cyst		0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
uterus			<38>				<40>				<45>				<44>			
	dilatation		1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
			(3)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

Organ	Findings	Group Name	Control				50 ppm				100 ppm				200 ppm			
		No. of Animals on Study	38				40				45				44			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
mammary gl			<38>				<40>				<45>				<44>			
	galactocele		14	0	0	0	17	0	0	0	8	0	0	0	13	0	0	0
			(37)	(0)	(0)	(0)	(43)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(30)	(0)	(0)	(0)
[Special sense organs/appandage]																		
eye			<38>				<40>				<45>				<44>			
	cataract		2	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	keratitis		2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
[Musculoskeletal system]																		
bone			<38>				<40>				<45>				<44>			
	osteosclerosis		2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
			(5)	(0)	(0)	(0)	(8)	(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

APPENDIX K 1

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Time-related Weeks	Items	Group Name	Control	50 ppm	100 ppm	200 ppm
0 - 52	NO. OF EXAMINED ANIMALS		1	0	0	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		1	2	0	0
	NO. OF ANIMALS WITH TUMORS		1	2	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	2	0	0
	NO. OF BENIGN TUMORS		1	3	0	0
	NO. OF MALIGNANT TUMORS		1	1	0	0
	NO. OF TOTAL TUMORS		2	4	0	0
79 - 104	NO. OF EXAMINED ANIMALS		9	13	17	20
	NO. OF ANIMALS WITH TUMORS		9	12	17	20
	NO. OF ANIMALS WITH SINGLE TUMORS		2	3	2	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		7	9	15	19
	NO. OF BENIGN TUMORS		15	17	29	30
	NO. OF MALIGNANT TUMORS		4	7	8	19
	NO. OF TOTAL TUMORS		19	24	37	49
105 - 105	NO. OF EXAMINED ANIMALS		39	35	33	30
	NO. OF ANIMALS WITH TUMORS		39	35	33	30
	NO. OF ANIMALS WITH SINGLE TUMORS		12	11	8	9
	NO. OF ANIMALS WITH MULTIPLE TUMORS		27	24	25	21
	NO. OF BENIGN TUMORS		75	62	74	56
	NO. OF MALIGNANT TUMORS		7	6	4	6
	NO. OF TOTAL TUMORS		82	68	78	62

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Time-related Weeks	Items	Group Name	Control	50 ppm	100 ppm	200 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		50	49	50	50
	NO. OF ANIMALS WITH SINGLE TUMORS		15	14	10	10
	NO. OF ANIMALS WITH MULTIPLE TUMORS		35	35	40	40
	NO. OF BENIGN TUMORS		91	82	103	86
	NO. OF MALIGNANT TUMORS		13	14	12	25
	NO. OF TOTAL TUMORS		104	96	115	111

APPENDIX K 2

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

Time-related Weeks	Items	Group Name	Control	50 ppm	100 ppm	200 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	0	0	1
	NO. OF ANIMALS WITH TUMORS		0	0	0	1
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	1
	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	1
	NO. OF TOTAL TUMORS		0	0	0	1
53 - 78	NO. OF EXAMINED ANIMALS		3	3	0	1
	NO. OF ANIMALS WITH TUMORS		3	3	0	1
	NO. OF ANIMALS WITH SINGLE TUMORS		3	3	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	1
	NO. OF BENIGN TUMORS		1	0	0	1
	NO. OF MALIGNANT TUMORS		2	3	0	1
	NO. OF TOTAL TUMORS		3	3	0	2
79 - 104	NO. OF EXAMINED ANIMALS		9	7	5	4
	NO. OF ANIMALS WITH TUMORS		9	7	5	4
	NO. OF ANIMALS WITH SINGLE TUMORS		6	4	2	2
	NO. OF ANIMALS WITH MULTIPLE TUMORS		3	3	3	2
	NO. OF BENIGN TUMORS		3	7	7	4
	NO. OF MALIGNANT TUMORS		9	4	2	2
	NO. OF TOTAL TUMORS		12	11	9	6
105 - 105	NO. OF EXAMINED ANIMALS		38	40	45	44
	NO. OF ANIMALS WITH TUMORS		32	34	34	30
	NO. OF ANIMALS WITH SINGLE TUMORS		19	22	14	23
	NO. OF ANIMALS WITH MULTIPLE TUMORS		13	12	20	7
	NO. OF BENIGN TUMORS		48	43	59	37
	NO. OF MALIGNANT TUMORS		3	3	10	4
	NO. OF TOTAL TUMORS		51	46	69	41

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

Time-related Weeks	Items	Group Name	Control	50 ppm	100 ppm	200 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		44	44	39	36
	NO. OF ANIMALS WITH SINGLE TUMORS		28	29	16	26
	NO. OF ANIMALS WITH MULTIPLE TUMORS		16	15	23	10
	NO. OF BENIGN TUMORS		52	50	66	42
	NO. OF MALIGNANT TUMORS		14	10	12	8
	NO. OF TOTAL TUMORS		66	60	78	50

APPENDIX L 1

HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS: SUMMARY,
RAT: MALE
(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Integumentary system/appandage]						
skin/app			<50>	<50>	<50>	<50>
	squamous cell papilloma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	keratoacanthoma		1 (2%)	1 (2%)	1 (2%)	1 (2%)
	sebaceous adenoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
subcutis			<50>	<50>	<50>	<50>
	fibroma		1 (2%)	3 (6%)	4 (8%)	3 (6%)
	lipoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	schwannoma:malignant		0 (0%)	0 (0%)	2 (4%)	0 (0%)
[Respiratory system]						
nasal cavit			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		1 (2%)	3 (6%)	4 (8%)	1 (2%)
	squamous cell carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
[Hematopoietic system]						
thymus			<50>	<50>	<50>	<50>
	thymoma:malignant		0 (0%)	1 (2%)	0 (0%)	0 (0%)

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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Hematopoietic system]						
spleen			<50>	<50>	<50>	<50>
	fibrosarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	mononuclear cell leukemia		5 (10%)	2 (4%)	2 (4%)	4 (8%)
[Digestive system]						
oral cavity			<50>	<50>	<50>	<50>
	squamous cell carcinoma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
tongue			<50>	<50>	<50>	<50>
	squamous cell papilloma		0 (0%)	1 (2%)	0 (0%)	1 (2%)
salivary gl			<50>	<50>	<50>	<50>
	adenocarcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	schwannoma:malignant		0 (0%)	0 (0%)	0 (0%)	1 (2%)
stomach			<50>	<50>	<50>	<50>
	leiomyoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
small intes			<50>	<50>	<50>	<50>
	adenocarcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
large intes			<50>	<50>	<50>	<50>
	leiomyosarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
liver			<50>	<50>	<50>	<50>
	hepatocellular adenoma		0 (0%)	2 (4%)	1 (2%)	1 (2%)
	histiocytic sarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
pancreas			<50>	<50>	<50>	<50>
	islet cell adenoma		4 (8%)	3 (6%)	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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Urinary system]						
urin bladd			<50>	<50>	<50>	<50>
	transitional cell papilloma		0 (0%)	0 (0%)	1 (2%)	2 (4%)
[Endocrine system]						
pituitary			<50>	<50>	<50>	<50>
	adenoma		23 (46%)	11 (22%)	16 (32%)	13 (26%)
thyroid			<50>	<50>	<50>	<50>
	C-cell adenoma		6 (12%)	5 (10%)	2 (4%)	6 (12%)
	follicular adenoma		2 (4%)	0 (0%)	2 (4%)	6 (12%)
	C-cell carcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	follicular adenocarcinoma		2 (4%)	4 (8%)	1 (2%)	4 (8%)
adrenal			<50>	<50>	<50>	<50>
	pheochromocytoma		4 (8%)	4 (8%)	9 (18%)	2 (4%)
	pheochromocytoma:malignant		0 (0%)	2 (4%)	0 (0%)	3 (6%)
[Reproductive system]						
testis			<50>	<50>	<50>	<50>
	interstitial cell tumor		44 (88%)	47 (94%)	49 (98%)	47 (94%)
prostate			<50>	<50>	<50>	<50>
	squamous cell carcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
mammary gl			<50>	<50>	<50>	<50>
	adenoma		0 (0%)	0 (0%)	3 (6%)	0 (0%)

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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Reproductive system]						
mammary gl			<50>	<50>	<50>	<50>
	fibroadenoma		2 (4%)	0 (0%)	0 (0%)	0 (0%)
prep/cli gl			<50>	<50>	<50>	<50>
	adenoma		0 (0%)	1 (2%)	4 (8%)	1 (2%)
[Nervous system]						
brain			<50>	<50>	<50>	<50>
	malignant reticulosis		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	glioma		1 (2%)	0 (0%)	0 (0%)	2 (4%)
spinal cord			<50>	<50>	<50>	<50>
	glioma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
[Special sense organs/appandage]						
Harder gl			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
Zymbal gl			<50>	<50>	<50>	<50>
	adenoma		0 (0%)	1 (2%)	2 (4%)	1 (2%)
	squamous cell carcinoma		1 (2%)	0 (0%)	1 (2%)	1 (2%)
[Musculoskeletal system]						
muscle			<50>	<50>	<50>	<50>
	lipoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	rhabdomyosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)

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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Musculoskeletal system]						
muscle			<50>	<50>	<50>	<50>
	sarcoma:NOS		0 (0%)	0 (0%)	0 (0%)	1 (2%)
bone			<50>	<50>	<50>	<50>
	osteosarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
vertebra			<50>	<50>	<50>	<50>
	chordoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
[Body cavities]						
mediastinum			<50>	<50>	<50>	<50>
	hemangiosarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
peritoneum			<50>	<50>	<50>	<50>
	osteosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	mesothelioma		1 (2%)	1 (2%)	1 (2%)	3 (6%)

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

APPENDIX L 2

HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS: SUMMARY,
RAT: FEMALE
(2-YEAR STUDY)

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Integumentary system/appandage]						
skin/app			<50>	<50>	<50>	<50>
	trichoepithelioma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
subcutis			<50>	<50>	<50>	<50>
	fibroma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
[Respiratory system]						
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		0 (0%)	0 (0%)	1 (2%)	2 (4%)
[Hematopoietic system]						
bone marrow			<50>	<50>	<50>	<50>
	histiocytic sarcoma		1 (2%)	0 (0%)	1 (2%)	0 (0%)
thymus			<50>	<50>	<50>	<49>
	thymoma:malignant		0 (0%)	1 (2%)	0 (0%)	0 (0%)
spleen			<50>	<50>	<50>	<50>
	mononuclear cell leukemia		4 (8%)	6 (12%)	5 (10%)	3 (6%)
[Digestive system]						
tongue			<50>	<50>	<50>	<49>
	squamous cell papilloma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
small intes			<50>	<50>	<50>	<50>
	hemangiosarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
liver			<50>	<50>	<50>	<50>
	hepatocellular adenoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	histiocytic sarcoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)

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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Digestive system]						
pancreas			<50>	<50>	<50>	<50>
	islet cell adenoma		2 (4%)	1 (2%)	1 (2%)	0 (0%)
[Endocrine system]						
pituitary			<50>	<50>	<50>	<50>
	adenoma		27 (54%)	27 (54%)	23 (46%)	21 (42%)
	adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
thyroid			<50>	<50>	<50>	<49>
	C-cell adenoma		4 (8%)	4 (8%)	4 (8%)	3 (6%)
	follicular adenoma		0 (0%)	1 (2%)	2 (4%)	0 (0%)
	C-cell carcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	follicular adenocarcinoma		0 (0%)	0 (0%)	2 (4%)	0 (0%)
adrenal			<50>	<50>	<50>	<50>
	pheochromocytoma		1 (2%)	0 (0%)	3 (6%)	1 (2%)
	cortical adenoma		1 (2%)	1 (2%)	1 (2%)	0 (0%)
	pheochromocytoma:malignant		3 (6%)	0 (0%)	0 (0%)	1 (2%)
[Reproductive system]						
ovary			<50>	<50>	<50>	<49>
	schwannoma:malignant		1 (2%)	0 (0%)	0 (0%)	0 (0%)

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

Organ	Findings	Group Name / No. of animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Reproductive system]						
uterus			<50>	<50>	<50>	<50>
	endometrial stromal polyp		7 (14%)	6 (12%)	13 (26%)	7 (14%)
	leiomyosarcoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	schwannoma:malignant		1 (2%)	1 (2%)	0 (0%)	1 (2%)
	endometrial stromal sarcoma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
mammary gl			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	0 (0%)	1 (2%)	1 (2%)
	fibroadenoma		8 (16%)	9 (18%)	11 (22%)	4 (8%)
	adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	anaplastic carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
prep/cli gl			<50>	<50>	<50>	<50>
	adenoma		0 (0%)	1 (2%)	4 (8%)	1 (2%)
[Nervous system]						
brain			<50>	<50>	<50>	<50>
	meningioma:benign		0 (0%)	0 (0%)	0 (0%)	1 (2%)
spinal cord			<50>	<50>	<50>	<50>
	glioma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
[Musculoskeletal system]						
bone			<50>	<50>	<50>	<50>
	osteosarcoma		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

APPENDIX M 1

NEOPLASTIC LESIONS - INCIDENCE AND STATISTICAL ANALYSIS, RAT: MALE

(2-YEAR STUDY)

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : subcutis TUMOR : fibroma			
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	4/50(8.0)	3/50(6.0)
Adjusted rates(b)	2.56	6.82	9.09	10.00
Terminal rates(c)	1/39(2.6)	2/35(5.7)	3/33(9.1)	3/30(10.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3831			
Prevalence method(d)	P = 0.1572			
Combined analysis(d)	P = 0.1530			
Cochran-Armitage test(e)	P = 0.4316			
Fisher Exact test(e)		P = 0.3235	P = 0.1998	P = 0.3235
	SITE : lung TUMOR : bronchiolar-alveolar adenoma			
Tumor rate				
Overall rates(a)	1/50(2.0)	3/50(6.0)	4/50(8.0)	1/50(2.0)
Adjusted rates(b)	2.56	7.69	12.12	2.50
Terminal rates(c)	1/39(2.6)	2/35(5.7)	4/33(12.1)	0/30(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.5037			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.8627			
Fisher Exact test(e)		P = 0.3235	P = 0.1998	P = 0.2475
	SITE : spleen TUMOR : mononuclear cell leukemia			
Tumor rate				
Overall rates(a)	5/50(10.0)	2/50(4.0)	2/50(4.0)	4/50(8.0)
Adjusted rates(b)	7.69	2.86	0.0	0.0
Terminal rates(c)	3/39(7.7)	1/35(2.9)	0/33(0.0)	0/30(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0997			
Prevalence method(d)	P = 0.9839			
Combined analysis(d)	P = 0.4688			
Cochran-Armitage test(e)	P = 0.8844			
Fisher Exact test(e)		P = 0.2425	P = 0.2425	P = 0.4883

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : pancreas TUMOR : islet cell adenoma			
Tumor rate				
Overall rates(a)	4/50(8.0)	3/50(6.0)	2/50(4.0)	0/50(0.0)
Adjusted rates(b)	8.89	8.57	4.65	0.0
Terminal rates(c)	2/39(5.1)	3/35(8.6)	0/33(0.0)	0/30(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.9758			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.0436*			
Fisher Exact test(e)		P = 0.4895	P = 0.3574	P = 0.0688
	SITE : pituitary gland TUMOR : adenoma			
Tumor rate				
Overall rates(a)	23/50(46.0)	11/50(22.0)	16/50(32.0)	13/50(26.0)
Adjusted rates(b)	50.00	31.43	33.33	23.68
Terminal rates(c)	19/39(48.7)	11/35(31.4)	10/33(30.3)	7/30(23.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1376			
Prevalence method(d)	P = 0.9564			
Combined analysis(d)	P = 0.8902			
Cochran-Armitage test(e)	P = 0.1165			
Fisher Exact test(e)		P = 0.0555	P = 0.2231	P = 0.1075
	SITE : thyroid TUMOR : C-cell adenoma			
Tumor rate				
Overall rates(a)	6/50(12.0)	5/50(10.0)	2/50(4.0)	6/50(12.0)
Adjusted rates(b)	14.63	14.29	6.06	13.33
Terminal rates(c)	5/39(12.8)	5/35(14.3)	2/33(6.1)	4/30(13.3)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.4141			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.9675			
Fisher Exact test(e)		P = 0.4872	P = 0.1606	P = 0.3807

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : thyroid TUMOR : follicular adenoma			
Tumor rate				
Overall rates(a)	2/50(4.0)	0/50(0.0)	2/50(4.0)	6/50(12.0)
Adjusted rates(b)	5.13	0.0	6.06	19.35
Terminal rates(c)	2/39(5.1)	0/35(0.0)	2/33(6.1)	5/30(16.7)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.0052**			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.0213*			
Fisher Exact test(e)		P = 0.2574	P = 0.3088	P = 0.1606
	SITE : thyroid TUMOR : follicular adenocarcinoma			
Tumor rate				
Overall rates(a)	2/50(4.0)	4/50(8.0)	1/50(2.0)	4/50(8.0)
Adjusted rates(b)	5.13	11.43	3.03	10.53
Terminal rates(c)	2/39(5.1)	4/35(11.4)	1/33(3.0)	2/30(6.7)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.2160			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.5641			
Fisher Exact test(e)		P = 0.3574	P = 0.4926	P = 0.3574
	SITE : thyroid TUMOR : C-cell adenoma,C-cell carcinoma			
Tumor rate				
Overall rates(a)	6/50(12.0)	5/50(10.0)	3/50(6.0)	6/50(12.0)
Adjusted rates(b)	14.63	14.29	6.06	13.33
Terminal rates(c)	5/39(12.8)	5/35(14.3)	2/33(6.1)	4/30(13.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3796			
Prevalence method(d)	P = 0.4149			
Combined analysis(d)	P = 0.3966			
Cochran-Armitage test(e)	P = 1.0000			
Fisher Exact test(e)		P = 0.4872	P = 0.2728	P = 0.3807

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : thyroid TUMOR : follicular adenoma,follicular adenocarcinoma			
Tumor rate				
Overall rates(a)	4/50(8.0)	4/50(8.0)	3/50(6.0)	10/50(20.0)
Adjusted rates(b)	10.26	11.43	9.09	27.27
Terminal rates(c)	4/39(10.3)	4/35(11.4)	3/33(9.1)	7/30(23.3)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.0080**			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.0388*			
Fisher Exact test(e)		P = 0.3579	P = 0.4895	P = 0.1108
	SITE : adrenal gland TUMOR : pheochromocytoma			
Tumor rate				
Overall rates(a)	4/50(8.0)	4/50(8.0)	9/50(18.0)	2/50(4.0)
Adjusted rates(b)	10.26	10.81	24.24	6.67
Terminal rates(c)	4/39(10.3)	3/35(8.6)	8/33(24.2)	2/30(6.7)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.5568			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.5962			
Fisher Exact test(e)		P = 0.3579	P = 0.1562	P = 0.3574
	SITE : adrenal gland TUMOR : pheochromocytoma:malignant			
Tumor rate				
Overall rates(a)	0/50(0.0)	2/50(4.0)	0/50(0.0)	3/50(6.0)
Adjusted rates(b)	0.0	0.0	0.0	9.38
Terminal rates(c)	0/39(0.0)	0/35(0.0)	0/33(0.0)	2/30(6.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7158			
Prevalence method(d)	P = 0.0023**?			
Combined analysis(d)	P = 0.0456*			
Cochran-Armitage test(e)	P = 0.1079			
Fisher Exact test(e)		P = 0.2574	P = 0.5000	P = 0.1325

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : adrenal gland			
	TUMOR : pheochromocytoma,pheochromocytoma:malignant			
Tumor rate				
Overall rates(a)	4/50(8.0)	6/50(12.0)	9/50(18.0)	5/50(10.0)
Adjusted rates(b)	10.26	10.81	24.24	15.63
Terminal rates(c)	4/39(10.3)	3/35(8.6)	8/33(24.2)	4/30(13.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7158			
Prevalence method(d)	P = 0.1765			
Combined analysis(d)	P = 0.2488			
Cochran-Armitage test(e)	P = 0.7686			
Fisher Exact test(e)		P = 0.3944	P = 0.1562	P = 0.4883
	SITE : testis			
	TUMOR : interstitial cell tumor			
Tumor rate				
Overall rates(a)	44/50(88.0)	47/50(94.0)	49/50(98.0)	47/50(94.0)
Adjusted rates(b)	95.45	95.74	100.00	100.00
Terminal rates(c)	37/39(94.9)	33/35(94.3)	33/33(100.0)	30/30(100.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -------			
Prevalence method(d)	P = 0.0636			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.2648			
Fisher Exact test(e)		P = 0.4671	P = 0.4094	P = 0.4671
	SITE : mammary gland			
	TUMOR : adenoma			
Tumor rate				
Overall rates(a)	0/50(0.0)	0/50(0.0)	3/50(6.0)	0/50(0.0)
Adjusted rates(b)	0.0	0.0	7.50	0.0
Terminal rates(c)	0/39(0.0)	0/35(0.0)	2/33(6.1)	0/30(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.3256			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.7680			
Fisher Exact test(e)		P = 0.5000	P = 0.1325	P = 0.5000

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : preputial/clitoral gland TUMOR : adenoma			
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	4/50(8.0)	1/50(2.0)
Adjusted rates(b)	0.0	2.04	12.12	3.33
Terminal rates(c)	0/39(0.0)	0/35(0.0)	4/33(12.1)	1/30(3.3)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.2154			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.4835			
Fisher Exact test(e)		P = 0.4950	P = 0.0688	P = 0.4950
	SITE : Zymbal gland TUMOR : adenoma,squamous cell carcinoma			
Tumor rate				
Overall rates(a)	1/50(2.0)	1/50(2.0)	3/50(6.0)	2/50(4.0)
Adjusted rates(b)	2.56	2.86	3.03	2.44
Terminal rates(c)	1/39(2.6)	1/35(2.9)	1/33(3.0)	0/30(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1424			
Prevalence method(d)	P = 0.4515			
Combined analysis(d)	P = 0.2132			
Cochran-Armitage test(e)	P = 0.4744			
Fisher Exact test(e)		P = 0.2475	P = 0.3235	P = 0.4926

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : peritoneum TUMOR : mesothelioma			
Tumor rate				
Overall rates(a)	1/50(2.0)	1/50(2.0)	1/50(2.0)	3/50(6.0)
Adjusted rates(b)	0.0	0.0	0.0	3.33
Terminal rates(c)	0/39(0.0)	0/35(0.0)	0/33(0.0)	1/30(3.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2111			
Prevalence method(d)	P = 0.0906			
Combined analysis(d)	P = 0.0868			
Cochran-Armitage test(e)	P = 0.2072			
Fisher Exact test(e)		P = 0.2475	P = 0.2475	P = 0.3235

(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 probabities 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 ≦ 0.05 ** : P ≦ 0.01

APPENDIX M 2

NEOPLASTIC LESIONS - INCIDENCE AND STATISTICAL ANALYSIS, RAT: FEMALE

(2-YEAR STUDY)

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : spleen			
	TUMOR : mononuclear cell leukemia			
Tumor rate				
Overall rates(a)	4/50(8.0)	6/50(12.0)	5/50(10.0)	3/50(6.0)
Adjusted rates(b)	2.56	5.00	8.89	2.27
Terminal rates(c)	0/38(0.0)	2/40(5.0)	4/45(8.9)	1/44(2.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8016			
Prevalence method(d)	P = 0.5404			
Combined analysis(d)	P = 0.7648			
Cochran-Armitage test(e)	P = 0.5587			
Fisher Exact test(e)		P = 0.3944	P = 0.4883	P = 0.4895
	SITE : pituitary gland			
	TUMOR : adenoma			
Tumor rate				
Overall rates(a)	27/50(54.0)	27/50(54.0)	23/50(46.0)	21/50(42.0)
Adjusted rates(b)	63.16	58.54	44.44	45.45
Terminal rates(c)	24/38(63.2)	23/40(57.5)	20/45(44.4)	20/44(45.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8253			
Prevalence method(d)	P = 0.9710			
Combined analysis(d)	P = 0.9833			
Cochran-Armitage test(e)	P = 0.1655			
Fisher Exact test(e)		P = 0.4330	P = 0.3866	P = 0.2961
	SITE : thyroid			
	TUMOR : C-cell adenoma			
Tumor rate				
Overall rates(a)	4/50(8.0)	4/50(8.0)	4/50(8.0)	3/49(6.1)
Adjusted rates(b)	10.53	10.00	8.89	6.98
Terminal rates(c)	4/38(10.5)	4/40(10.0)	4/45(8.9)	3/43(7.0)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.7220			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.7047			
Fisher Exact test(e)		P = 0.3579	P = 0.3579	P = 0.4788

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : thyroid			
	TUMOR : C-cell adenoma,C-cell carcinoma			
Tumor rate				
Overall rates(a)	5/50(10.0)	4/50(8.0)	4/50(8.0)	3/49(6.1)
Adjusted rates(b)	10.53	10.00	8.89	6.98
Terminal rates(c)	4/38(10.5)	4/40(10.0)	4/45(8.9)	3/43(7.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9213 ?			
Prevalence method(d)	P = 0.7220			
Combined analysis(d)	P = 0.8127			
Cochran-Armitage test(e)	P = 0.4994			
Fisher Exact test(e)		P = 0.4883	P = 0.4883	P = 0.3899
	SITE : thyroid			
	TUMOR : follicular adenoma,follicular adenocarcinoma			
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	4/50(8.0)	0/49(0.0)
Adjusted rates(b)	0.0	2.50	8.89	0.0
Terminal rates(c)	0/38(0.0)	1/40(2.5)	4/45(8.9)	0/43(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.4996			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.9250			
Fisher Exact test(e)		P = 0.4950	P = 0.0688	P = 0.5000
	SITE : adrenal gland			
	TUMOR : pheochromocytoma			
Tumor rate				
Overall rates(a)	1/50(2.0)	0/50(0.0)	3/50(6.0)	1/50(2.0)
Adjusted rates(b)	2.63	0.0	6.12	2.27
Terminal rates(c)	1/38(2.6)	0/40(0.0)	2/45(4.4)	1/44(2.3)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.3668			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.7019			
Fisher Exact test(e)		P = 0.4950	P = 0.3235	P = 0.2475

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : adrenal gland			
	TUMOR : pheochromocytoma:malignant			
Tumor rate				
Overall rates(a)	3/50(6.0)	0/50(0.0)	0/50(0.0)	1/50(2.0)
Adjusted rates(b)	0.0	0.0	0.0	2.27
Terminal rates(c)	0/38(0.0)	0/40(0.0)	0/45(0.0)	1/44(2.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9942 ?			
Prevalence method(d)	P = 0.1117			
Combined analysis(d)	P = 0.8529			
Cochran-Armitage test(e)	P = 0.3056			
Fisher Exact test(e)		P = 0.1325	P = 0.1325	P = 0.3235
	SITE : adrenal gland			
	TUMOR : pheochromocytoma,pheochromocytoma:malignant			
Tumor rate				
Overall rates(a)	4/50(8.0)	0/50(0.0)	3/50(6.0)	2/50(4.0)
Adjusted rates(b)	2.63	0.0	6.12	4.55
Terminal rates(c)	1/38(2.6)	0/40(0.0)	2/45(4.4)	2/44(4.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9942 ?			
Prevalence method(d)	P = 0.1872			
Combined analysis(d)	P = 0.6764			
Cochran-Armitage test(e)	P = 0.6865			
Fisher Exact test(e)		P = 0.0688	P = 0.4895	P = 0.3574
	SITE : uterus			
	TUMOR : endometrial stromal polyp			
Tumor rate				
Overall rates(a)	7/50(14.0)	6/50(12.0)	13/50(26.0)	7/50(14.0)
Adjusted rates(b)	15.91	14.29	28.26	14.89
Terminal rates(c)	6/38(15.8)	5/40(12.5)	12/45(26.7)	6/44(13.6)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.4538			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.7720			
Fisher Exact test(e)		P = 0.4863	P = 0.1634	P = 0.3882

Group Name	Control	50 ppm	100 ppm	200 ppm
	SITE : mammary gland TUMOR : fibroadenoma			
Tumor rate				
Overall rates(a)	8/50(16.0)	9/50(18.0)	11/50(22.0)	4/50(8.0)
Adjusted rates(b)	21.05	19.05	22.45	9.09
Terminal rates(c)	8/38(21.1)	7/40(17.5)	10/45(22.2)	4/44(9.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6164			
Prevalence method(d)	P = 0.9191			
Combined analysis(d)	P = 0.9312			
Cochran-Armitage test(e)	P = 0.2405			
Fisher Exact test(e)		P = 0.4846	P = 0.3526	P = 0.2169
	SITE : preputial/clitoral gland TUMOR : adenoma			
Tumor rate				
Overall rates(a)	0/50(0.0)	1/50(2.0)	4/50(8.0)	1/50(2.0)
Adjusted rates(b)	0.0	2.50	8.51	2.17
Terminal rates(c)	0/38(0.0)	1/40(2.5)	3/45(6.7)	0/44(0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = ------			
Prevalence method(d)	P = 0.2984			
Combined analysis(d)	P = ------			
Cochran-Armitage test(e)	P = 0.4835			
Fisher Exact test(e)		P = 0.4950	P = 0.0688	P = 0.4950

(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 probabities 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 ≦ 0.05 ** : P ≦ 0.01

APPENDIX N 1

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY,
RAT: MALE: ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of Animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Respiratory system]						
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	0	2	3
	metastasis:liver tumor		0	1	0	0
	metastasis:thyroid tumor		0	1	0	0
	metastasis:subcutis tumor		0	0	2	0
	metastasis:vertebra tumor		0	0	1	0
	metastasis:salivary gland tumor		0	0	1	1
[Hematopoietic system]						
bone marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	1	2
	metastasis:liver tumor		0	1	0	0
lymph node			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	0	0
	metastasis:muscle tumor		0	1	0	0
[Digestive system]						
salivary gl			<50>	<50>	<50>	<50>
	metastasis:subcutis tumor		0	0	1	0
stomach			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	0	0
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	0	1	2

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

Organ	Findings	Group Name / No. of Animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Digestive system]						
liver			<50>	<50>	<50>	<50>
	metastasis:small intestine tumor		0	0	0	1
[Urinary system]						
kidney			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	1	0	0
[Endocrine system]						
adrenal			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	1	0	0
[Nervous system]						
brain			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	1	0	2
	metastasis:bone tumor		0	0	0	1
spinal cord			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	0
[Musculoskeletal system]						
bone			<50>	<50>	<50>	<50>
	metastasis:liver tumor		0	1	0	0

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

APPENDIX N 2

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY,
RAT: MALE: DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of Animals on Study	Control 11	50 ppm 15	100 ppm 17	200 ppm 20
[Respiratory system]						
lung			<11>	<15>	<17>	<20>
	leukemic cell infiltration		2	0	2	3
	metastasis:liver tumor		0	1	0	0
	metastasis:subcutis tumor		0	0	2	0
	metastasis:vertebra tumor		0	0	1	0
	metastasis:salivary gland tumor		0	0	0	1
[Hematopoietic system]						
bone marrow			<11>	<15>	<17>	<20>
	leukemic cell infiltration		1	0	1	2
	metastasis:liver tumor		0	1	0	0
lymph node			<11>	<15>	<17>	<20>
	metastasis:muscle tumor		0	1	0	0
[Digestive system]						
salivary gl			<11>	<15>	<17>	<20>
	metastasis:subcutis tumor		0	0	1	0
stomach			<11>	<15>	<17>	<20>
	leukemic cell infiltration		1	0	0	0
liver			<11>	<15>	<17>	<20>
	leukemic cell infiltration		2	0	1	2
	metastasis:small intestine tumor		0	0	0	1

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

Organ	Findings	Group Name / No. of Animals on Study	Control 11	50 ppm 15	100 ppm 17	200 ppm 20
[Urinary system]						
kidney			<11>	<15>	<17>	<20>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	1	0	0
[Endocrine system]						
adrenal			<11>	<15>	<17>	<20>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	1	0	0
[Nervous system]						
brain			<11>	<15>	<17>	<20>
	leukemic cell infiltration		2	1	0	2
	metastasis:bone tumor		0	0	0	1
spinal cord			<11>	<15>	<17>	<20>
	leukemic cell infiltration		0	1	0	0
[Musculoskeletal system]						
bone			<11>	<15>	<17>	<20>
	metastasis:liver tumor		0	1	0	0

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

APPENDIX N 3

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY, RAT: MALE: SACRIFICED ANIMALS (2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : MALE

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

Organ	Findings	Group Name / No. of Animals on Study	Control 39	50 ppm 35	100 ppm 33	200 ppm 30
[Respiratory system]						
lung			<39>	<35>	<33>	<30>
	leukemic cell infiltration		1	0	0	0
	metastasis:thyroid tumor		0	1	0	0
	metastasis:salivary gland tumor		0	0	1	0
[Hematopoietic system]						
lymph node			<39>	<35>	<33>	<30>
	leukemic cell infiltration		1	0	0	0
[Digestive system]						
liver			<39>	<35>	<33>	<30>
	leukemic cell infiltration		1	0	0	0

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

APPENDIX N 4

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY,
RAT: FEMALE: ALL ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name / No. of Animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Respiratory system]						
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	5	1	2
	metastasis:liver tumor		0	0	0	1
	metastasis:uterus tumor		0	0	1	0
	metastasis:adrenal tumor		1	0	0	0
	metastasis:thyroid tumor		1	0	0	0
	metastasis:bone tumor		1	0	1	0
[Hematopoietic system]						
bone marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	0	2
	metastasis:liver tumor		0	0	0	1
lymph node			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:uterus tumor		0	0	1	0
	metastasis:thyroid tumor		1	0	0	0
	metastasis:bone tumor		1	0	0	0
spleen			<50>	<50>	<50>	<50>
	metastasis:liver tumor		0	0	0	1
[Digestive system]						
large intes			<50>	<50>	<50>	<50>
	metastasis:uterus tumor		0	1	0	0

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

Organ	Findings	Group Name / No. of Animals on Study	Control 50	50 ppm 50	100 ppm 50	200 ppm 50
[Digestive system]						
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	6	5	3
	metastasis:bone tumor		1	0	0	0
[Urinary system]						
kidney			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:adrenal tumor		1	0	0	0
[Reproductive system]						
ovary			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:adrenal tumor		1	0	0	0
uterus			<50>	<50>	<50>	<50>
	metastasis:adrenal tumor		1	0	0	0
[Nervous system]						
brain			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	0	1
spinal cord			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	0

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

APPENDIX N 5

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY,
RAT : FEMALE: DEAD AND MORIBUND ANIMALS
(2-YEAR STUDY)

Organ	Findings	Group Name / No. of Animals on Study	Control 12	50 ppm 10	100 ppm 5	200 ppm 6
[Respiratory system]						
lung			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		3	4	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:uterus tumor		0	0	1	0
	metastasis:adrenal tumor		1	0	0	0
	metastasis:thyroid tumor		1	0	0	0
	metastasis:bone tumor		1	0	0	0
[Hematopoietic system]						
bone marrow			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		1	1	0	2
	metastasis:liver tumor		0	0	0	1
lymph node			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		1	1	0	0
	metastasis:liver tumor		0	0	0	1
	metastasis:uterus tumor		0	0	1	0
	metastasis:thyroid tumor		1	0	0	0
	metastasis:bone tumor		1	0	0	0
spleen			<12>	<10>	< 5>	< 6>
	metastasis:liver tumor		0	0	0	1
[Digestive system]						
large intes			<12>	<10>	< 5>	< 6>
	metastasis:uterus tumor		0	1	0	0

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

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name / No. of Animals on Study	Control 12	50 ppm 10	100 ppm 5	200 ppm 6
[Digestive system]						
liver			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		3	4	1	2
	metastasis:bone tumor		1	0	0	0
[Urinary system]						
kidney			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		0	0	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:adrenal tumor		1	0	0	0
[Reproductive system]						
ovary			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		0	1	0	1
	metastasis:liver tumor		0	0	0	1
	metastasis:adrenal tumor		1	0	0	0
uterus			<12>	<10>	< 5>	< 6>
	metastasis:adrenal tumor		1	0	0	0
[Nervous system]						
brain			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		1	1	0	1
spinal cord			<12>	<10>	< 5>	< 6>
	leukemic cell infiltration		0	1	0	0

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

APPENDIX N 6

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY,
RAT: FEMALE: SACRIFICED ANIMALS
(2-YEAR STUDY)

STUDY NO. : 0269
ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

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

Organ	Findings	Group Name / No. of Animals on Study	Control 38	50 ppm 40	100 ppm 45	200 ppm 44
[Respiratory system]						
lung			<38>	<40>	<45>	<44>
	leukemic cell infiltration		0	1	1	1
	metastasis:bone tumor		0	0	1	0
[Hematopoietic system]						
lymph node			<38>	<40>	<45>	<44>
	leukemic cell infiltration		0	0	0	1
[Digestive system]						
liver			<38>	<40>	<45>	<44>
	leukemic cell infiltration		0	2	4	1

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

APPENDIX O 1

IDENTITY OF 2-METHALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

IDENTITY OF 2-METHALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

A. Test Substance Lot No.: LKG5978

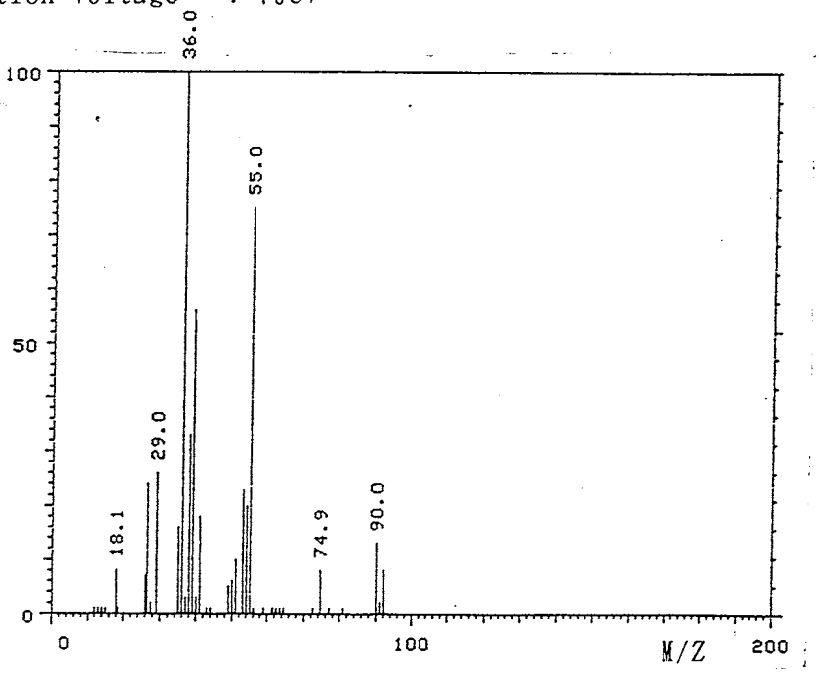
I. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI(Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determined Fragment Peak(M/Z)	Literature Value* Fragment Peak(M/Z)
36.0	36
39.0	39
55.0	55
90.0	90

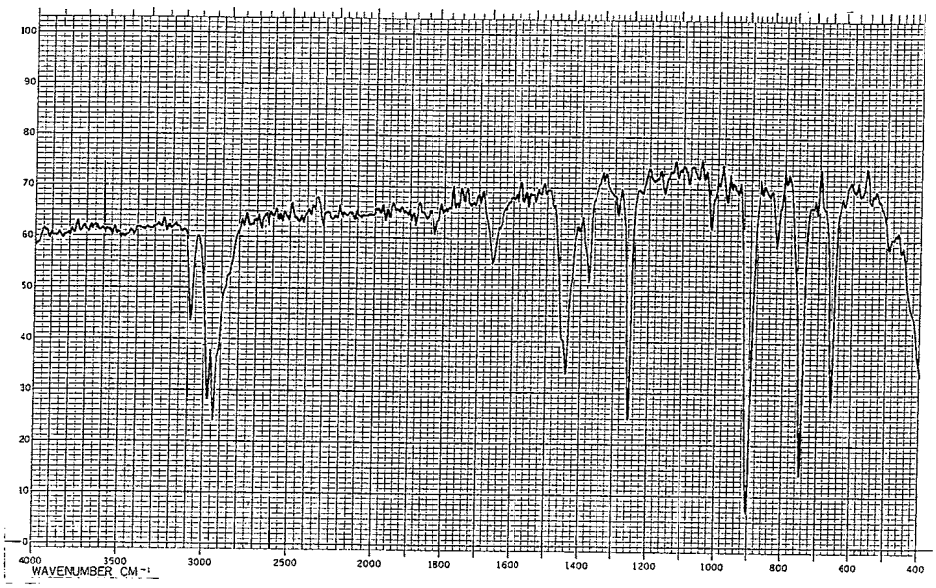
(*EPA/NIH Mass Spectral Data Base (1978) Vol. 1, p. 53.)

Infrared Spectrometry

Instrument : Hitachi 270-30 Infrared Spectrometer

Cell : KBr

Slit : Medium



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

Determined Value Wave Number(cm^{-1})	Literature Value* Wave Number(cm^{-1})
480～ 520	
640～ 690	640～ 670
720～ 780	720～ 770
800～ 840	800～ 830
880～ 940	880～ 940
970～ 990	960～ 990
1000～1040	1000～1040
1150～1180	1140～1170
1220～1240	1210～1230
1240～1280	1230～1280
1290～1310	1280～1300
1360～1400	1360～1390
1410～1480	1410～1480
1620～1680	1620～1680
1780～1860	1780～1860
2800～3030	2800～3000
3050～3130	3050～3130

(*Performed by the WAKO PURE PURE CHEMICAL INDUSTRIES, LTD)

2. Conclusions: The result of the mass spectrum and the infrared spectrum agreed with the literature values.
Consequently, the test substance was identified as Methallylchloride.

B. Test Substance Lot No.: CAK4434

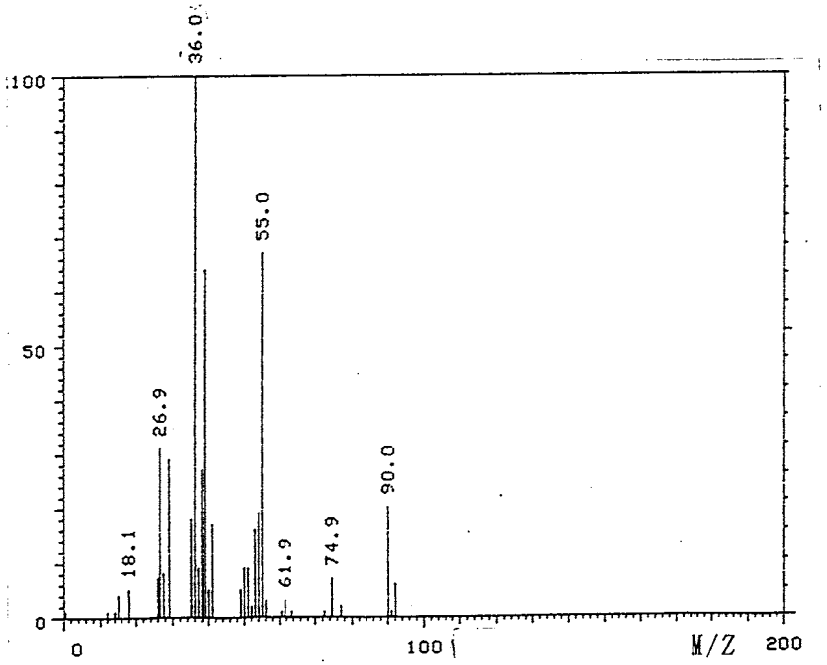
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI(Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determined Fragment Peak(M/Z)	Literature Value* Fragment Peak(M/Z)
36.0	36
39.0	39
55.0	55
90.0	90

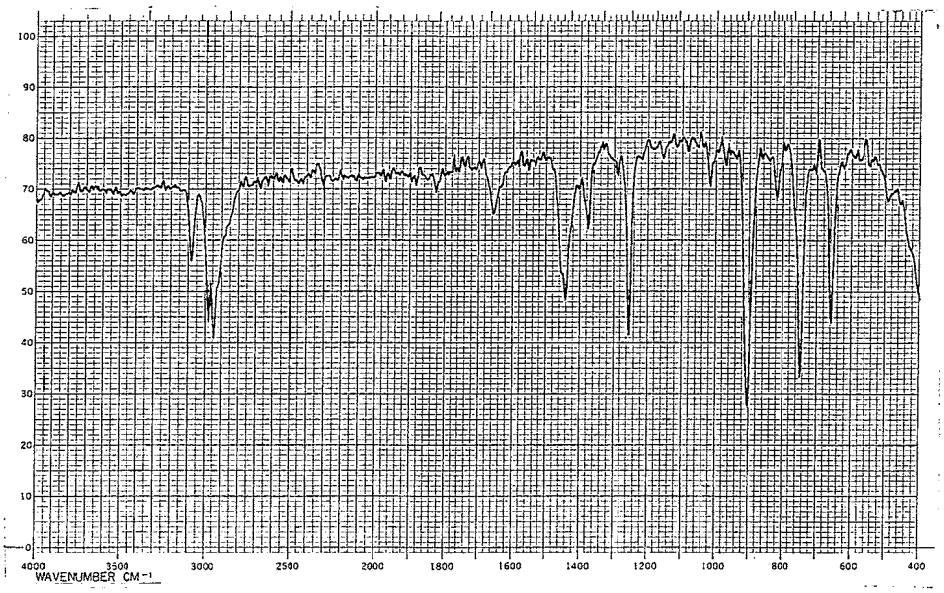
(*EPA/NIH Mass Spectral Data Base (1978) Vol. 1, p. 53.)

Infrared Spectrometry

Instrument : Hitachi 270-30 Infrared Spectrometer

Cell : KBr

Slit : Medium



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

Determined Value Wave Number(cm^{-1})	Literature Value* Wave Number(cm^{-1})
480～ 520	
640～ 690	640～ 670
720～ 780	720～ 770
800～ 840	800～ 830
880～ 940	880～ 940
970～ 990	960～ 990
1000～1040	1000～1040
1150～1180	1140～1170
1220～1240	1210～1230
1240～1280	1230～1280
1290～1310	1280～1300
1360～1400	1360～1390
1410～1480	1410～1480
1620～1680	1620～1680
1780～1860	1780～1860
2800～3030	2800～3000
3050～3130	3050～3130

(*Performed by the WAKO PURE PURE CHEMICAL INDUSTRIES, LTD)

2. Conclusions: The result of the mass spectrum and the infrared spectrum agreed with the literature values.
Consequently, the test substance was identified as Methallylchloride.

C. Test Substance Lot No.: SKK4584

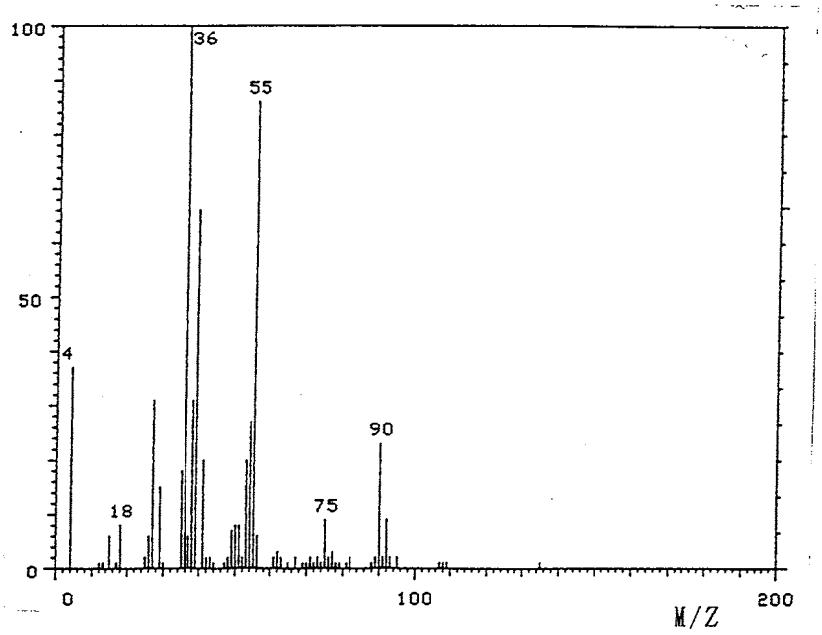
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI(Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determined Fragment Peak(M/Z)	Literature Value* Fragment Peak(M/Z)
36.0	36
39.0	39
55.0	55
90.0	90

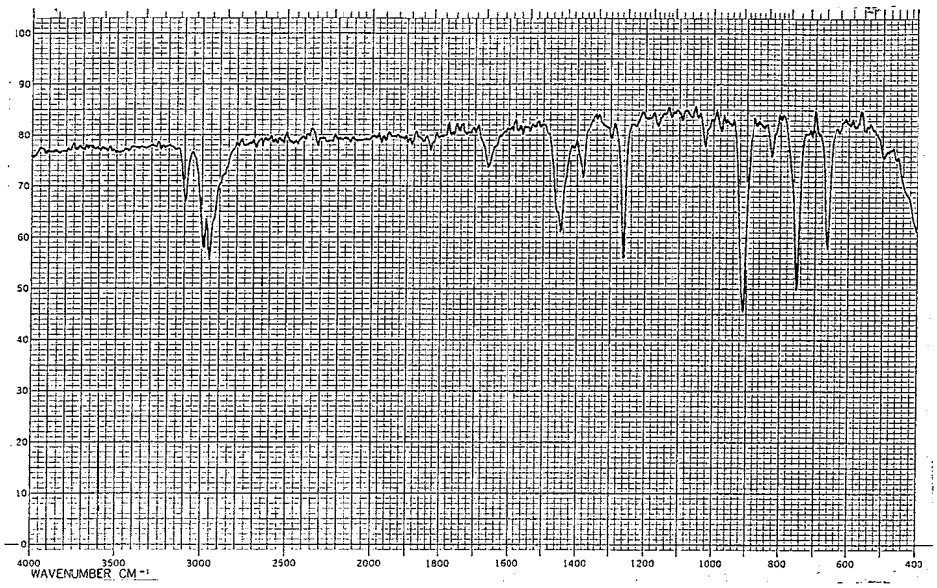
(*EPA/NIH Mass Spectral Data Base (1978) Vol. 1, p. 53.)

Infrared Spectrometry

Instrument : Hitachi 270-30 Infrared Spectrometer

Cell : KBr

Slit : Medium



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

Determined Value Wave Number(cm^{-1})	Literature Value* Wave Number(cm^{-1})
480～ 520	
640～ 690	640～ 670
720～ 780	720～ 770
800～ 840	800～ 830
880～ 940	880～ 940
970～ 990	960～ 990
1000～1040	1000～1040
1150～1180	1140～1170
1220～1240	1210～1230
1240～1280	1230～1280
1290～1310	1280～1300
1360～1400	1360～1390
1410～1480	1410～1480
1620～1680	1620～1680
1780～1860	1780～1860
2800～3030	2800～3000
3050～3130	3050～3130

(*Performed by the WAKO PURE PURE CHEMICAL INDUSTRIES, LTD)

2. Conclusions: The result of the mass spectrum and the infrared spectrum agreed with the literature values.
Consequently, the test substance was identified as Methallylchloride.

APPENDIX O 2
STABILITY OF 2-METHALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

STABILITY OF 2-METHALLYL CHLORIDE IN THE 2-YEAR INHALATION STUDY

A. Test Substance Lot No.: LKG5978

1. Sample: This lot was used from 1994.5.25 to 1994.11.8. Test substance was stored at room temperature .

2. Infrared Spectrometry

Instrument : Hitachi 270-30 Infrared Spectrometer

Cell : KBr

Slit : Medium

Results: Infrared spectrum of the test substance agreed with before use and after use.

1994.05.25(date analyzed) Wave Number(cm^{-1})	1994.11.08(date analyzed) Wave Number(cm^{-1})
480～ 520	480～ 520
640～ 690	640～ 690
720～ 780	720～ 780
800～ 840	800～ 840
880～ 940	880～ 940
970～ 990	970～ 990
1000～1040	1000～1040
1150～1180	1150～1180
1220～1240	1220～1240
1240～1280	1240～1280
1290～1310	1290～1310
1360～1400	1360～1400
1410～1480	1410～1480
1620～1680	1620～1680
1780～1860	1780～1860
2800～3030	2800～3030
3050～3130	3050～3130

3. Gas Chromatography

Instrument : Hewlett Packard 5890A

Column : Carbowax 20M(0.2mmϕ × 50m)

Column Temperature : 80°C

Flow Rate : 0.9 ml/min

Detector : FID(Flame Ionization Detector)

Injection Volume : 1 μl

Results: Gas chromatography indicated one major peak(peak No. 2) and two impurities(peak No. 1, 3 < 2% of total area) analyzed at 1994. 5. 25 and one major peak(peak No. 2) and two impurities(peak No. 1, 3 < 2% of total area) analyzed at 1994. 11. 8. It was identified only by comparing its gas chromatograph with that of the 1-Chloro-2-methyl-1-propene(peak No. 1) and 1, 2-Dichloroisobutane (peak No. 3) in the Methallylchloride, the amount in the test substance were 1. 4% and 0. 15% at 1994. 5. 25. No new trace impurity peak in the test substance analyzed at 1994. 11. 8 was detected.

Date (date analyzed)	Peak No.	Retention Time(min)	AREA(%)
1994. 05. 25	1	4. 14	1. 6
	2	4. 442	98. 3
	3	5. 86	0. 1
1994. 11. 08	1	4. 138	1. 6
	2	4. 442	98. 3
	3	5. 86	0. 1

4. Conclusions: The results indicated that the test substance did not change when stored in the dark at room temperature during this period(for about 5 months).

B. Test Substance Lot No. : CAK4434

1. Sample: This lot was used from 1994.11.9 to 1995.8.8. Test substance was stored at room temperature .

2. Infrared Spectrometry

Instrument : Hitachi 270-30 Infrared Spectrometer

Cell : KBr

Slit : Medium

Results: Infrared spectrum of the test substance agreed with before use and after use.

1994.11.02(date analyzed) Wave Number(cm^{-1})	1995.08.08(date analyzed) Wave Number(cm^{-1})
480～ 520	480～ 520
640～ 690	640～ 690
720～ 780	720～ 780
800～ 840	800～ 840
880～ 940	880～ 940
970～ 990	970～ 990
1000～1040	1000～1040
1150～1180	1150～1180
1220～1240	1220～1240
1240～1280	1240～1280
1290～1310	1290～1310
1360～1400	1360～1400
1410～1480	1410～1480
1620～1680	1620～1680
1780～1860	1780～1860
2800～3030	2800～3030
3050～3130	3050～3130

3. Gas Chromatography

Instrument : Hewlett Packard 5890A

Column : Carbowax 20M(0.2mmϕ × 50m)

Column Temperature : 80°C

Flow Rate : 0.9 ml/min

Detector : FID(Flame Ionization Detector)

Injection Volume : 1 μl

Results: Gas chromatography indicated one major peak(peak No. 2) and two impurities(peak No. 1, 3 < 2% of total area) analyzed at 1994. 11. 2 and one major peak(peak No. 2) and two impurities(peak No. 1, 3 < 2% of total area) analyzed at 1995. 8. 8. It was identified only by comparing its gas chromatograph with that of the 1-Chloro-2-methyl-1-propene(peak No. 1) and 1, 2-Dichloroisobutane (peak No. 3) in the Methallylchloride, the amount in the test substance were 1. 4% and 0. 15% at 1994. 11. 2. No new trace impurity peak in the test substance analyzed at 1995. 8. 8 was detected.

Date (date analyzed)	Peak No.	Retention Time(min)	AREA(%)
1994. 11. 02	1	4. 14	1. 6
	2	4. 442	98. 3
	3	5. 863	0. 1
1995. 08. 08	1	4. 142	1. 6
	2	4. 445	98. 3
	3	5. 863	0. 1

4. Conclusions: The results indicated that the test substance did not change when stored in the dark at room temperature during this period(for about 9 months).

C. Test Substance Lot No. : SKK4584

1. Sample: This lot was used from 1994.8.9 to 1996.6.20. Test substance was stored at room temperature .

2. Infrared Spectrometry

Instrument : Hitachi 270-30 Infrared Spectrometer

Cell : KBr

Slit : Medium

Results: Infrared spectrum of the test substance agreed with before use and after use.

1995.08.08(date analyzed) Wave Number(cm^{-1})	1996.07.09(date analyzed) Wave Number(cm^{-1})
480～ 520	480～ 520
640～ 690	640～ 690
720～ 780	720～ 780
800～ 840	800～ 840
880～ 940	880～ 940
970～ 990	970～ 990
1000～1040	1000～1040
1150～1180	1150～1180
1220～1240	1220～1240
1240～1280	1240～1280
1290～1310	1290～1310
1360～1400	1360～1400
1410～1480	1410～1480
1620～1680	1620～1680
1780～1860	1780～1860
2800～3030	2800～3030
3050～3130	3050～3130

3. Gas Chromatography

Instrument : Hewlett Packard 5890A

Column : Carbowax 20M(0.2mmϕ × 50m)

Column Temperature : 80°C

Flow Rate : 0.9 ml/min

Detector : FID(Flame Ionization Detector)

Injection Volume : 1 μl

Results: Gas chromatography indicated one major peak(peak No. 2) and two impurities(peak No. 1, 3 < 2% of total area) analyzed at 1995. 8. 8 and one major peak(peak No. 2) and two impurities(peak No. 1, 3 < 2% of total area) analyzed at 1996. 7. 9. It was identified only by comparing its gas chromatograph with that of the 1-Chloro-2-methyl-1-propene(peak No. 1) and 1, 2-Dichloroisobutane (peak No. 3) in the Methallylchloride, the amount in the test substance were 1. 4% and 0. 15% at 1995. 8. 8. No new trace impurity peak in the test substance analyzed at 1996. 7. 9 was detected.

Date (date analyzed)	Peak No.	Retention Time(min)	AREA(%)
1995. 08. 08	1	4. 14	1. 6
	2	4. 442	98. 3
	3	5. 863	0. 1
1996. 07. 09	1	4. 143	1. 6
	2	4. 445	98. 3
	3	5. 865	0. 1

4. Conclusions: The results indicated that the test substance did not change when stored in the dark at room temperature during this period(for about 11 months).

APPENDIX P 1

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

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

Group Name	Concentration (ppm) Mean ± S.D.
Control	0.0 ± 0.0
50ppm	50.0 ± 0.4
100ppm	100.4 ± 0.5
200ppm	199.7 ± 1.0

APPENDIX P 2

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

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

Group Name	Temperature(°C) Mean ± S.D.	Humidity(%) Mean ± S.D.	Ventilation Rate(L/min) Mean ± S.D.	Room Air Change(time/h) Mean
Control	22.3 ± 0.3	53.5 ± 2.0	1525.5 ± 13.7	12.0
50ppm	22.7 ± 0.4	54.4 ± 2.1	1520.2 ± 12.0	12.0
100ppm	22.3 ± 0.4	52.7 ± 2.5	1518.5 ± 11.0	12.0
200ppm	22.3 ± 0.3	55.1 ± 2.3	1518.7 ± 13.9	12.0

APPENDIX Q 1

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS IN THE 2-YEAR INHALATION STUDY OF 2-METHALLYL CHLORIDE

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS IN THE 2-YEAR INHALATION STUDY OF 2-METHALLYL CHLORIDE

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

1) Automatic blood cell analyzer (Technicon H·1 : Technicon Instruments Corporation,USA)
2) Automatic blood cell differential analyzer (Hitachi 8200 : Hitachi,Ltd.,Japan)
3) Automatic analyzer (Hitachi 7070 : Hitachi,Ltd.,Japan)
4) Ames reagent strips for urinalysis (Multistix : Bayer-Sankyo Co.,Ltd.,Japan)

APPENDIX Q 2

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

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

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