

ヒドラジナー水加物のマウスを用いた  
経口投与によるがん原性試験(混水試験)報告書

試験番号：0285

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## APPENDIXES

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APPENDIX A 1

CLINICAL OBSERVATION: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	1	1	1	1	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	1	1	1	1	1	1	1	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



STUDY NO. : 0285  
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CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
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CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	80 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
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
DEATH	Control	1	2	2	2	2	2	2	2	2	2	2	3	4	4
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	40 ppm	2	2	2	2	2	2	2	2	2	2	2	2	3	3
	80 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
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
DEATH	Control	4	4	4	4	4	4	4	4	4	4	4	4	5	5
	20 ppm	2	2	2	2	2	3	3	3	4	4	4	4	4	4
	40 ppm	4	4	4	5	5	5	5	5	6	6	6	6	6	6
	80 ppm	0	0	0	0	1	2	2	2	2	2	2	2	3	3
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	1	1	1	1	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	2	3	3	3	2	1	1	1	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
DEATH	Control	5	5	5		5	6	6	6	6	8	8	8	8	9	10
	20 ppm	4	5	5		5	5	5	6	7	9	10	10	10	10	10
	40 ppm	6	7	7		7	7	9	9	9	11	11	11	11	11	11
	80 ppm	3	3	3		3	3	3	4	5	5	5	5	5	5	6
MORIBUND SACRIFICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	40 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	1	1		1	1	1	1	1	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	1	1	1	1	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	1	1	1	1	1	1	1	1	1
PARALYTIC GAIT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0		0	0	1	0	1	0	0	0	0	1	3
	20 ppm	0	0	1		1	1	3	3	3	3	2	2	2	2	2
	40 ppm	0	0	0		0	0	2	2	2	1	1	1	1	1	1
	80 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	2

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	11	12	14	16	16	17
	20 ppm	10	11	12	12	16	17
	40 ppm	11	11	12	13	13	13
	80 ppm	6	6	6	7	7	8
MORIBUND SACRIFICE	Control	0	1	1	1	2	2
	20 ppm	1	1	1	1	3	3
	40 ppm	1	1	1	1	1	1
	80 ppm	1	2	2	2	2	2
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	20 ppm	0	0	0	1	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	1
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
PILOERECTION	Control	2	2	1	0	0	0
	20 ppm	2	2	3	3	0	0
	40 ppm	0	0	1	0	0	0
	80 ppm	1	0	2	1	3	2

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	20 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
M.EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		1	1	1	1	1	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
M.EYE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	1	1	1	1	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	2
	40 ppm	0	0	0	0	0	0	0	1	1	1	2	2	3	3
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2
M.EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
EXTERNAL MASS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1		1	1	1	1	1	1	1	2	2	2	2
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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	1	1	1	2	2	1	1
	20 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	40 ppm	2	2	2		2	2	1	1	1	1	1	1	1	1	1
	80 ppm	2	2	2		2	1	1	1	1	1	1	1	1	0	0
M.EYE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	1	1	1		1	1	1	1	1	1	1	2	2	2	2
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	1		1	1	1	1	1	1	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	1	1		1	1	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
EXTERNAL MASS	Control	0	0	0		0	0	1	1	1	1	2	2	2	2	4
	20 ppm	2	1	1		1	1	1	2	2	2	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	1	1		1	1	2	2	2	2	2	2	2	2	2
INTERNAL MASS	Control	1	1	1		1	2	4	5	5	4	4	4	4	5	6
	20 ppm	1	1	1		2	2	3	2	1	1	1	1	1	1	2
	40 ppm	1	1	1		2	2	1	1	1	0	0	0	0	1	1
	80 ppm	0	0	0		0	0	1	1	1	1	2	2	2	2	1
M.EYE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	2	1	1		1	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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	1
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	1	1	1	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
FROG BELLY	Control	0	0	0	0	0	0
	20 ppm	0	0	1	1	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	0
	20 ppm	0	0	0	0	0	0
	40 ppm	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1
EXTERNAL MASS	Control	5	4	3	3	3	3
	20 ppm	1	1	1	2	2	3
	40 ppm	0	0	0	0	0	0
	80 ppm	2	2	2	2	2	1
INTERNAL MASS	Control	7	6	4	3	3	3
	20 ppm	2	2	2	2	1	0
	40 ppm	1	1	1	0	1	1
	80 ppm	1	1	1	1	1	0
M.EYE	Control	1	1	1	1	1	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	0	0	0	0
	20 ppm	1	1	1	2	2	2
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M.NECK	Control	1	1	0	0	0	1
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M.BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M.BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
M.BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M.BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	58-7	59-7												
M.BREAST	Control	0	0	0		0	0	0	0	1	1	1	1	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
M.BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
M.BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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	1	1	1	1	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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	1
	20 ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		99-7	100-7	101-7	102-7	103-7	104-7
M.BREAST	Control	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M.GENITALIA	Control	1	0	0	0	0	0
	20 ppm	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M.TAIL	Control	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
ANEMIA	Control	0	1	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
CRUSTA	Control	0	1	0	1	2	2
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	1	1	1	1	1	1	1	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
TORTICOLLIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
TORTICOLLIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	80 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
RESPIRATORY SOUND ABNOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	80 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
TACHYPNEA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
SMALL STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0		0	1	1	1	1	1	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	1	2	3	0	1	1	1	0

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CLINICAL OBSERVATION (SUMMARY)  
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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	80 ppm	1	2	2	2	1	1	1	1	1	1	1	1	1	1
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	80 ppm	1	2	2	2	1	1	1	1	1	1	1	1	1	1
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	0	0	0	0	0	1	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	80 ppm	0	1	1	1	1	0	0	0	0	0	3	2	1	1

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	40 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	2	0	1	0	1	1	1	1	4
	20 ppm	0	0	0	0	0	3	3	4	1	2	2	2	2	2
	40 ppm	2	1	1	1	0	2	0	2	0	1	0	0	0	1
	80 ppm	1	1	1	1	1	2	1	1	1	1	1	1	1	2

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CLINICAL OBSERVATION (SUMMARY)  
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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
TORTICOLLIS	Control	0	0	0	0	0	0
	20 ppm	0	0	1	1	1	1
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	1	1	1
IRREGULAR BREATHING	Control	0	0	0	0	0	1
	20 ppm	1	2	2	3	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	1	1	1	1	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	1
	20 ppm	1	2	2	3	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
TACHYPNEA	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
ABNORMAL RESPIRA.SOUND	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	1	1	1	1	1
SMALL STOOL	Control	0	0	0	0	0	0
	20 ppm	0	1	1	2	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	1	0	0	0
OLIGO-STOOL	Control	3	2	2	1	1	0
	20 ppm	2	2	3	5	0	0
	40 ppm	1	0	0	0	0	0
	80 ppm	2	2	4	3	2	2

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

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

(HAN190)

BAIS3



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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Grj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 36

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 37

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 38

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BA1S3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 39

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 40

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0

(HAN190)

BAIS3

APPENDIX A 2

CLINICAL OBSERVATION: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 41

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

PAGE : 42

Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
DEATH	Control	0	0	0		0	0	0	0	0	0	0	0	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
PARALYTIC GAIT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1		1	1	1	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
ANIMAL : MOUSE Grj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
DEATH	Control	1	1	1		1	1	1	1	1	1	1	1	1	1	2
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
PARALYTIC GAIT	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0285  
ANIMAL : MOUSE Grj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
DEATH	Control	4	4	4	4	5	5	5	5	5	6	8	8	8	8
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	2	2	2	2	3	3	3	4	4	4	4	4	4	4
	160 ppm	1	1	2	2	2	2	4	4	4	4	5	5	6	8
MORIBUND SACRIFICE	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	40 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	80 ppm	0	0	0	0	0	2	2	2	2	2	2	2	2	2
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	2	1	1	1	0	1	1	1	1
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	40 ppm	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	1	1	1	1	1	1	1	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
DEATH	Control	8	8	9	9	9	12	12	13	14	15	16	17	18	19
	40 ppm	1	2	3	3	4	4	4	4	4	4	5	7	7	7
	80 ppm	4	6	6	6	6	6	6	7	7	7	8	9	9	12
	160 ppm	8	9	9	9	9	11	12	13	13	13	13	13	13	14
MORIBUND SACRIFICE	Control	2	2	2	2	2	2	2	2	2	2	2	2	3	3
	40 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	3	3	4
	160 ppm	0	0	0	0	0	1	1	1	1	2	2	2	2	2
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	1	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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	160 ppm	1	1	1	1	2	0	0	0	0	0	0	0	1	1
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	20	20	20	20	20	20
	40 ppm	7	7	7	7	9	11
	80 ppm	13	14	14	14	15	15
	160 ppm	15	16	16	18	20	24
MORIBUND SACRIFICE	Control	3	3	3	3	3	4
	40 ppm	2	2	2	2	2	2
	80 ppm	4	5	5	5	5	6
	160 ppm	3	3	3	3	3	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	0
	160 ppm	2	1	1	1	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
ROTATING	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	2	2	3
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N.NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N.EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Clinical sign	Group Name	Administration Week-day				18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7												
PILOERECTOR	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	3	3	3		3	3	3	3	3	3	2	2	2	2	2
FROG BELLY	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	1	1	1	1
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
PILOERECTIO	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	2	3	2	2	2	3	3	3	3	4	4	4	4	4
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	160 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
	40 ppm	1	1	1	1	1	1	1	1	1	1	0	0	1	1
	80 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	4	4	4	4	4	4	3	3	3	3	3	3	3	3
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160 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
	40 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	3	3	3	3	3	3	4	5	6	6	6	6	6	6
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	0	0	0	1	1	1	1	1	1
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
INTERNAL MASS	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	40 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	1	1	1	1	1	1	1	1	1	1	2	2
	160 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
M.NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	160 ppm	6	7	7	7	7	7	5	5	5	5	5	8	8	5
FROG BELLY	Control	0	0	1	2	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	0	0	0	0	0	1	1	1
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	2	1	1	1	1	1	1	1
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
INTERNAL MASS	Control	5	5	5	5	5	5	5	5	5	4	3	3	3	3
	40 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	80 ppm	1	1	1	1	0	0	1	0	0	0	0	0	1	2
	160 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	2
M.NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
PILORECTION	Control	0	0	0	0	2	0	0	0	0	0	0	0	1	0
	40 ppm	0	0	0	0	0	0	1	0	0	1	1	0	0	0
	80 ppm	1	0	0	0	2	2	3	2	2	2	2	2	2	1
	160 ppm	7	6	5	5	9	7	6	5	5	4	5	6	6	5
FROG BELLY	Control	0	1	0	0	2	0	0	0	0	1	1	2	0	0
	40 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	160 ppm	0	0	0	0	1	1	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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	2	2	2
EXTERNAL MASS	Control	0	1	1	1	1	1	1	1	0	0	0	0	0	0
	40 ppm	1	2	2	2	1	1	2	2	2	2	2	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	160 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
INTERNAL MASS	Control	2	2	2	2	2	2	2	3	2	2	2	3	2	1
	40 ppm	2	3	2	3	2	2	3	4	4	4	3	3	3	3
	80 ppm	4	3	3	3	3	4	4	5	5	6	6	5	5	3
	160 ppm	2	2	2	2	2	1	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
	40 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
PILOERECTOR	Control	0	0	0	0	0	1
	40 ppm	0	0	0	0	0	2
	80 ppm	3	1	1	1	1	1
	160 ppm	6	8	8	7	9	6
FROG BELLY	Control	0	0	0	0	1	1
	40 ppm	0	1	1	2	0	0
	80 ppm	0	0	0	0	0	1
	160 ppm	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
	160 ppm	2	2	2	1	1	0
EXTERNAL MASS	Control	0	0	0	0	0	0
	40 ppm	1	2	3	3	3	4
	80 ppm	1	2	3	3	3	3
	160 ppm	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0
	40 ppm	3	3	3	4	5	6
	80 ppm	2	1	1	1	1	1
	160 ppm	1	0	0	0	0	0
M.NOSE	Control	0	0	0	0	0	0
	40 ppm	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
M.EAR	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M.HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M.HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
M.HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M.HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
M.HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		71-7	72-7	73-7												
M.HEAD	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	1	1	1	1	1	1	1	1
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	1		1	1	1	1	1	1	1	1	1	1	1
M.GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1		1	1	1	1	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
M.HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.NECK	Control	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	40 ppm	0	0	1	1	0	0	1	1	1	1	1	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ANTERIOR.DORSUM	Control	0	1	1	1	1	1	1	1	0	0	0	0	0	0
	40 ppm	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0	1	1	1	1	1	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		99-7	100-7	101-7	102-7	103-7	104-7
M.HEAD	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
	160 ppm	0	0	0	0	0	0
M.NECK	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0	0	0	0
	40 ppm	0	0	0	1	1	1
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
M.BREAST	Control	0	0	0	0	0	0
	40 ppm	0	0	1	1	1	1
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0
	40 ppm	0	1	1	1	1	2
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	1	1	1	1	1
	160 ppm	1	1	1	1	1	1
M.GENITALIA	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
M.TAIL	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	1	1	1	1
	160 ppm	0	0	0	0	0	0

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		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
EDEMA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	1	1	1		1	1	1	1	1	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0		0	0	0	0	0	1	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	0	0	1	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	1	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1		1	1	2	1	1	1	1	1	1	1	1
ABNORMAL RESPIRATION	Control	0	0	0		0	0	0	0	0	1	1	1	1	1	1
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	1	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1		1	1	2	1	1	1	1	1	1	1	1
BRADYPNEA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
EDEMA	Control	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	160 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	1	0
	40 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	160 ppm	1	1	1	1	1	0	0	0	1	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	40 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	160 ppm	1	1	1	1	1	1	0	0	1	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
EDEMA	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
SWELLING	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
	160 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	0
	160 ppm	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	0
	160 ppm	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3



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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 76

Clinical sign	Group Name	Administration Week-day			46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7											
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 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
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 77

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

(HAN190)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

PAGE : 78

Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
SMALL STOOL	Control	0	0	1	2	1	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	1	0	0	1	1	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

PAGE : 79

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
SMALL STOOL	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	1
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	160 ppm	1	1	1	0	1	0	0	0	0	0	1	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 80

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
SMALL STOOL	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	1	0	0	0	0	0
	160 ppm	1	2	2	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	40 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
	160 ppm	0	0	0	0	0	0

(HAN190)

BAIS 3

APPENDIX B 1

BODY WEIGHT CHANGES: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 1

Group Name	Administration week						
	0	1	2	3	4	5	6
Control	24.4± 0.7	25.6± 0.9	26.8± 1.3	27.8± 1.3	28.9± 1.3	29.9± 1.6	31.5± 1.8
20 ppm	24.4± 0.7	25.1± 0.8	26.3± 0.9	26.9± 1.0**	27.7± 1.3**	28.2± 1.5**	29.4± 1.3**
40 ppm	24.4± 0.7	24.6± 1.2**	25.8± 1.3**	26.3± 1.3**	26.8± 1.2**	27.3± 1.5**	27.9± 1.1**
80 ppm	24.4± 0.7	23.5± 0.9**	24.5± 1.2**	25.2± 1.2**	25.8± 1.2**	26.3± 1.0**	27.2± 1.2**

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

Test of Dunnett

STUDY NO. : 0285  
 ANIMAL : MOUSE G-j:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 2

Group Name	Administration week						
	7	8	9	10	11	12	13
Control	31.7± 2.0	32.7± 2.1	33.1± 2.2	34.7± 2.3	35.4± 2.4	36.0± 2.5	37.2± 2.6
20 ppm	28.9± 1.4**	29.7± 1.5**	30.2± 1.5**	31.2± 1.9**	31.9± 1.8**	32.3± 1.8**	33.4± 2.0**
40 ppm	27.9± 1.4**	28.5± 1.3**	29.0± 1.3**	29.6± 1.4**	30.2± 1.5**	30.4± 1.8**	31.0± 1.7**
80 ppm	26.7± 1.3**	27.4± 1.5**	27.5± 1.2**	27.9± 1.3**	28.3± 1.4**	28.4± 1.5**	28.7± 1.6**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 3

Group Name	Administration week						
	14	18	22	26	30	34	38
Control	37.6± 2.7	41.3± 3.3	43.9± 3.7	46.0± 3.8	47.6± 3.7	49.0± 3.4	50.7± 3.2
20 ppm	33.4± 2.0**	36.1± 2.4**	37.5± 2.9**	38.7± 3.0**	40.4± 3.3**	41.4± 3.8**	43.2± 4.2**
40 ppm	31.0± 1.7**	33.6± 1.8**	34.4± 2.7**	35.8± 2.4**	37.3± 2.9**	38.2± 3.0**	39.6± 3.4**
80 ppm	28.9± 1.7**	30.8± 2.2**	31.4± 2.5**	31.9± 2.5**	33.0± 2.8**	33.7± 3.2**	34.7± 3.3**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration week						
	42	46	50	54	58	62	66
Control	52.5± 3.1	53.5± 3.2	53.6± 2.7	54.9± 2.9	55.0± 3.0	55.3± 2.9	55.8± 3.0
20 ppm	44.7± 4.2**	46.4± 4.3**	46.7± 4.3**	47.8± 3.9**	47.8± 3.8**	49.0± 3.8**	48.7± 4.0**
40 ppm	41.0± 3.5**	42.7± 3.4**	43.2± 3.9**	44.0± 4.1**	44.0± 3.9**	44.7± 4.4**	44.3± 5.1**
80 ppm	35.5± 3.6**	37.1± 3.6**	37.7± 3.8**	38.6± 3.6**	38.4± 3.9**	39.2± 4.2**	39.1± 4.6**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration week	74	78	82	86	90	94
	70						
Control	55.6± 3.5	56.2± 3.8	56.3± 4.6	55.8± 5.8	55.1± 6.4	54.6± 7.2	55.0± 7.7
20 ppm	48.3± 5.5**	48.8± 6.1**	49.2± 5.3**	48.3± 5.8**	48.2± 5.8**	47.7± 7.6**	48.8± 7.8*
40 ppm	44.4± 5.3**	45.8± 4.1**	45.1± 4.3**	44.5± 4.8**	44.0± 4.8**	44.6± 4.7**	44.3± 4.6**
80 ppm	38.9± 5.0**	39.4± 5.6**	39.7± 5.0**	39.4± 5.1**	39.0± 5.3**	39.0± 5.2**	39.2± 5.2**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crl:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration week		
	98	102	104
Control	52.5± 9.5	51.1± 9.1	50.0± 9.1
20 ppm	48.0± 8.2	45.8± 9.9	47.5± 6.2
40 ppm	44.0± 5.2**	42.5± 5.3**	41.4± 6.0**
80 ppm	38.1± 5.2**	37.0± 5.2**	35.8± 5.3**

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

Test of Dunnett

(HAN260)

BATS3

APPENDIX B 2

BODY WEIGHT CHANGES: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 7

Group Name	Administration week	0	1	2	3	4	5	6
Control		19.6± 0.7	20.7± 0.8	21.5± 1.2	21.6± 1.0	22.4± 1.2	23.0± 0.9	23.9± 1.3
40 ppm		19.6± 0.7	20.1± 0.8**	21.0± 0.9	21.4± 0.9	22.0± 0.9	22.8± 1.0	23.1± 1.1**
80 ppm		19.6± 0.7	19.5± 0.8**	20.6± 0.7**	21.0± 0.7*	21.8± 1.0*	22.3± 0.9**	22.9± 1.0**
160 ppm		19.6± 0.7	16.6± 0.9**	17.8± 1.3**	19.2± 1.3**	19.9± 1.4**	20.5± 1.2**	21.0± 1.3**

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

Test of Dunnett

(HAN260)

BAIS3



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 8

Group Name	Administration week 7	8	9	10	11	12	13
Control	24.1± 1.2	24.9± 1.2	24.8± 1.3	25.1± 1.5	25.3± 1.6	25.9± 1.6	26.3± 1.8
40 ppm	23.2± 1.0**	23.7± 0.9**	24.1± 1.0*	24.3± 1.2**	24.2± 1.2**	24.6± 1.6**	24.7± 1.3**
80 ppm	23.0± 1.0**	23.3± 1.1**	23.5± 1.1**	23.8± 1.3**	24.0± 1.1**	24.2± 1.3**	24.2± 1.2**
160 ppm	21.3± 1.3**	21.7± 1.3**	21.9± 1.5**	21.9± 1.7**	22.4± 1.7**	22.4± 1.7**	22.3± 1.6**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration week						
	14	18	22	26	30	34	38
Control	26.3± 1.6	28.5± 2.5	30.1± 2.8	30.9± 2.8	32.1± 2.9	33.6± 3.2	34.6± 3.1
40 ppm	24.7± 1.2**	25.6± 1.5**	26.2± 1.4**	26.7± 1.9**	27.2± 1.7**	28.0± 1.8**	28.3± 2.3**
80 ppm	24.0± 1.1**	24.9± 1.2**	25.7± 1.4**	26.0± 1.5**	26.3± 1.5**	27.2± 1.7**	26.9± 1.7**
160 ppm	22.2± 1.9**	23.1± 1.9**	23.4± 2.1**	23.7± 1.8**	24.1± 2.0**	24.3± 1.8**	24.4± 1.7**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration week						
	42	46	50	54	58	62	66
Control	36.0± 3.5	37.5± 3.8	38.5± 3.9	39.2± 3.9	39.7± 3.9	40.2± 3.9	41.0± 4.1
40 ppm	28.9± 2.1**	29.8± 2.0**	30.3± 2.5**	30.7± 2.9**	30.9± 2.7**	31.6± 2.7**	31.7± 3.2**
80 ppm	27.4± 1.8**	28.3± 2.1**	28.3± 2.6**	28.8± 2.9**	28.6± 2.5**	28.8± 2.2**	29.0± 2.0**
160 ppm	24.6± 2.0**	25.1± 1.9**	24.7± 2.0**	25.2± 2.0**	25.1± 2.3**	25.1± 2.2**	25.2± 2.5**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration week						
	70	74	78	82	86	90	94
Control	40.8± 4.9	40.9± 4.9	41.8± 4.8	40.9± 4.5	42.0± 4.3	41.7± 4.5	41.5± 6.5
40 ppm	31.6± 2.9**	31.5± 3.5**	31.8± 3.6**	31.6± 2.8**	31.8± 3.3**	31.4± 2.8**	31.7± 3.1**
80 ppm	28.9± 2.2**	28.8± 2.7**	29.3± 2.5**	29.1± 2.5**	29.4± 2.4**	29.6± 3.2**	29.4± 3.7**
160 ppm	25.0± 2.5**	24.9± 2.6**	25.2± 2.3**	24.8± 3.5**	25.3± 3.2**	25.2± 5.1**	24.5± 3.0**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration week		
	98	102	104
Control	40.6± 4.3	40.0± 4.0	39.8± 7.4
40 ppm	32.1± 3.2**	32.0± 4.0**	31.2± 3.0**
80 ppm	29.4± 3.0**	28.5± 2.8**	29.0± 2.4**
160 ppm	24.1± 3.2**	23.4± 3.8**	23.6± 2.6**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett			

(HAN260)

BAIS3

APPENDIX C 1

WATER CONSUMPTION CHANGES: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)						
	1-7(4)	2-7(4)	3-7(4)	4-7(4)	5-7(4)	6-7(4)	7-7(4)
Control	4.4± 0.7	4.0± 0.8	4.3± 0.9	4.4± 0.9	4.4± 0.7	4.1± 0.7	3.8± 0.6
20 ppm	3.2± 0.7**	3.0± 0.8**	2.7± 0.7**	2.8± 0.9**	3.2± 0.8**	2.9± 0.6**	2.6± 0.6**
40 ppm	2.4± 0.5**	2.3± 0.5**	2.2± 0.5**	2.2± 0.4**	2.5± 0.6**	2.2± 0.5**	2.0± 0.4**
80 ppm	1.9± 0.3**	1.8± 0.3**	1.9± 0.4**	1.8± 0.5**	2.2± 0.4**	1.8± 0.4**	1.7± 0.4**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 2

Group Name	Administration 8-7(4)	week-day(effective) 9-7(4)	10-7(4)	11-7(4)	12-7(4)	13-7(4)	14-7(4)
Control	3.8± 0.7	3.6± 0.5	3.8± 0.7	3.5± 0.6	3.5± 0.8	3.5± 0.6	3.5± 0.5
20 ppm	2.4± 0.6**	2.4± 0.5**	2.4± 0.4**	2.4± 0.4**	2.3± 0.4**	2.2± 0.4**	2.1± 0.4**
40 ppm	2.0± 0.5**	2.1± 0.4**	2.1± 0.4**	2.0± 0.3**	2.0± 0.3**	1.9± 0.3**	1.8± 0.3**
80 ppm	1.8± 0.4**	1.7± 0.3**	1.7± 0.3**	1.8± 0.4**	1.7± 0.5**	1.6± 0.3**	1.6± 0.3**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 3

Group Name	Administration 18-7(4)	week-day(effective) 22-7(4)	26-7(4)	30-7(4)	34-7(4)	38-7(4)	42-7(4)
Control	3.5± 0.5	3.4± 0.4	3.4± 0.3	3.5± 0.3	3.5± 0.2	3.7± 0.3	3.6± 0.3
20 ppm	2.3± 0.4**	2.1± 0.3**	2.4± 0.3**	2.4± 0.3**	2.4± 0.3**	2.6± 0.4**	2.3± 0.3**
40 ppm	2.1± 0.3**	1.8± 0.3**	2.1± 0.3**	2.2± 0.3**	2.2± 0.3**	2.3± 0.3**	2.1± 0.3**
80 ppm	1.7± 0.2**	1.7± 0.4**	1.8± 0.2**	1.9± 0.3**	1.9± 0.4**	1.9± 0.3**	1.8± 0.2**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration		week-day(effective)				
	46-7(4)	50-7(4)	54-7(4)	58-7(4)	62-7(4)	66-7(4)	70-7(4)
Control	3.7± 0.3	3.9± 0.4	3.8± 0.4	4.0± 0.4	4.1± 0.5	4.1± 0.5	4.1± 0.5
20 ppm	2.7± 0.3**	2.7± 0.3**	2.7± 0.4**	2.7± 0.3**	3.1± 0.4**	2.8± 0.3**	2.8± 0.4**
40 ppm	2.4± 0.3**	2.4± 0.3**	2.4± 0.3**	2.5± 0.4**	2.6± 0.4**	2.6± 0.6**	2.6± 0.7**
80 ppm	2.1± 0.3**	2.1± 0.4**	2.1± 0.3**	2.2± 0.3**	2.3± 0.4**	2.1± 0.3**	2.2± 0.3**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration week-day(effective)						
	74-7(4)	78-7(4)	82-7(4)	86-7(4)	90-7(4)	94-7(4)	98-7(4)
Control	4.1± 0.5	4.3± 0.5	4.5± 0.7	4.5± 0.8	4.6± 0.7	4.7± 0.9	4.9± 1.2
20 ppm	2.8± 0.4**	3.0± 0.4**	3.0± 0.4**	3.2± 0.5**	3.3± 0.6**	3.1± 0.5**	3.2± 0.5**
40 ppm	2.6± 0.4**	2.6± 0.5**	2.8± 0.5**	2.9± 0.5**	3.1± 0.6**	2.9± 0.5**	2.8± 0.4**
80 ppm	2.2± 0.3**	2.2± 0.3**	2.3± 0.3**	2.4± 0.3**	2.6± 0.5**	2.5± 0.5**	2.4± 0.6**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

WATER CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day(effective)	
	102-7(4)	104-7(4)
Control	5.0± 1.3	5.4± 1.1
20 ppm	2.7± 0.9**	3.1± 0.5**
40 ppm	2.7± 0.5**	2.8± 0.6**
80 ppm	2.3± 0.4**	2.4± 0.4**
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett		

(HAN260)

BAIS3

## APPENDIX C 2

WATER CONSUMPTION CHANGES: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 7

Group Name	Administration 1-7(4)	week-day(effective) 2-7(4)	3-7(4)	4-7(4)	5-7(4)	6-7(4)	7-7(4)
Control	3.9± 0.4	3.8± 0.7	4.0± 0.6	4.2± 1.0	4.1± 0.6	4.2± 0.6	4.0± 0.6
40 ppm	2.3± 0.3**	2.2± 0.3**	2.2± 0.3**	2.3± 0.4**	2.4± 0.5**	2.3± 0.6**	2.2± 0.4**
80 ppm	1.9± 0.3**	1.9± 0.5**	1.9± 0.5**	2.2± 0.6**	2.3± 0.7**	2.2± 0.6**	2.1± 0.7**
160 ppm	1.1± 0.2**	1.4± 0.3**	1.4± 0.3**	1.5± 0.3**	1.6± 0.5**	1.6± 0.7**	1.5± 0.4**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 8

Group Name	Administration 8-7(4)	week-day(effective) 9-7(4)	10-7(4)	11-7(4)	12-7(4)	13-7(4)	14-7(4)
Control	4.2± 0.7	4.1± 0.8	4.1± 0.7	4.1± 0.6	4.1± 0.7	4.0± 0.6	4.0± 0.6
40 ppm	2.3± 0.7**	2.2± 0.4**	2.2± 0.4**	2.3± 0.7**	2.3± 0.8**	2.4± 0.5**	2.3± 0.5**
80 ppm	2.3± 0.7**	2.1± 0.7**	2.0± 0.6**	2.2± 0.5**	2.2± 0.5**	2.0± 0.6**	2.1± 1.2**
160 ppm	1.4± 0.4**	1.5± 0.4**	1.4± 0.4**	1.6± 0.4**	1.5± 0.4**	1.5± 0.5**	1.5± 0.4**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration 18-7(4)	week-day(effective) 22-7(4)	26-7(4)	30-7(4)	34-7(4)	38-7(4)	42-7(4)
Control	4.1± 0.7	4.0± 0.9	4.2± 0.6	4.1± 0.8	4.0± 0.9	4.1± 0.8	4.1± 0.8
40 ppm	2.3± 0.6**	2.3± 0.5**	2.3± 0.4**	2.5± 0.4**	2.4± 0.4**	2.5± 0.3**	2.2± 0.3**
80 ppm	2.1± 0.8**	2.1± 0.6**	2.2± 0.5**	2.2± 0.4**	2.2± 0.3**	2.2± 0.4**	2.0± 0.3**
160 ppm	1.5± 0.3**	1.4± 0.4**	1.6± 0.3**	1.7± 0.3**	1.7± 0.3**	1.7± 0.3**	1.7± 0.3**

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

Test of Dunnett



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration 46-7(4)	week-day(effective) 50-7(4)	54-7(4)	58-7(4)	62-7(4)	66-7(4)	70-7(4)
Control	3.7± 0.4	4.0± 0.6	3.8± 0.5	4.0± 0.7	3.9± 0.5	3.9± 0.6	3.9± 0.9
40 ppm	2.5± 0.4**	2.3± 0.3**	2.5± 0.5**	2.3± 0.4**	2.3± 0.4**	2.4± 0.3**	2.5± 0.3**
80 ppm	2.2± 0.3**	2.1± 0.3**	2.3± 0.4**	2.1± 0.4**	2.1± 0.3**	2.1± 0.3**	2.2± 0.4**
160 ppm	1.8± 0.3**	1.7± 0.6**	1.9± 0.4**	1.7± 0.5**	1.6± 0.3**	1.7± 0.3**	1.7± 0.4**

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

Test of Dunnett

(HAN260)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration 74-7(4)	week-day(effective) 78-7(4)	82-7(4)	86-7(4)	90-7(4)	94-7(4)	98-7(4)
Control	4.0± 0.8	4.0± 0.5	4.1± 0.6	4.1± 0.8	4.2± 0.8	4.4± 1.0	4.5± 0.9
40 ppm	2.3± 0.3**	2.4± 0.3**	2.5± 0.3**	2.5± 0.4**	2.5± 0.4**	2.7± 0.4**	2.6± 0.4**
80 ppm	2.1± 0.4**	2.3± 0.3**	2.4± 0.4**	2.4± 0.4**	2.5± 0.6**	2.3± 0.5**	2.6± 0.6**
160 ppm	1.7± 0.3**	1.9± 0.3**	1.9± 0.4**	1.9± 0.4**	2.0± 0.5**	1.9± 0.4**	2.0± 0.3**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

WATER CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day(effective)	
	102-7(4)	104-7(4)
Control	4.2± 0.8	4.3± 1.2
40 ppm	2.6± 0.5**	2.8± 0.6**
80 ppm	2.4± 0.6**	2.6± 0.5**
160 ppm	1.9± 0.5**	1.9± 0.4**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX D 1

FOOD CONSUMPTION CHANGES: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day(effective)						
	1-7(7)	2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	3.7± 0.3	3.8± 0.3	3.8± 0.3	4.9± 0.7	3.9± 0.3	4.1± 0.3	4.0± 0.3
20 ppm	3.6± 0.3*	3.7± 0.3	3.5± 0.3**	4.8± 0.4	3.6± 0.3**	3.6± 0.4**	3.7± 0.4**
40 ppm	3.6± 0.5	3.6± 0.4**	3.5± 0.3**	3.4± 0.3**	3.6± 0.6**	3.7± 0.5**	3.6± 0.5**
80 ppm	3.2± 0.3**	3.4± 0.3**	3.4± 0.3**	3.3± 0.3**	3.4± 0.2**	3.6± 0.2**	3.5± 0.2**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 2

Group Name	Administration 8-7(7)	week-day(effective) 9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	4.1± 0.3	4.0± 0.2	4.0± 0.3	4.0± 0.2	4.0± 0.3	4.0± 0.3	4.0± 0.3
20 ppm	3.8± 0.4**	3.8± 0.3**	3.8± 0.3**	3.8± 0.3**	3.7± 0.3**	3.6± 0.3**	3.7± 0.3**
40 ppm	3.6± 0.4**	3.6± 0.3**	3.6± 0.3**	3.6± 0.3**	3.5± 0.3**	3.5± 0.3**	3.5± 0.3**
80 ppm	3.5± 0.2**	3.5± 0.2**	3.4± 0.2**	3.5± 0.3**	3.4± 0.2**	3.3± 0.2**	3.4± 0.2**

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

Test of Dunnett

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 3

Group Name	Administration week-day(effective)						
	18-7(7)	22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	4.3± 0.3	4.2± 0.3	4.3± 0.3	4.4± 0.3	4.5± 0.2	4.4± 0.3	4.5± 0.3
20 ppm	3.9± 0.3**	3.7± 0.3**	4.0± 0.2**	4.0± 0.3**	4.1± 0.3**	3.9± 0.3**	4.0± 0.3**
40 ppm	3.8± 0.3**	3.5± 0.3**	3.8± 0.3**	3.8± 0.3**	3.9± 0.3**	3.8± 0.3**	3.8± 0.3**
80 ppm	3.7± 0.2**	3.5± 0.3**	3.6± 0.2**	3.7± 0.3**	3.8± 0.5**	3.6± 0.3**	3.7± 0.3**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration 46-7(7)	week-day(effective) 50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	4.5± 0.3	4.8± 0.3	4.7± 0.3	4.6± 0.3	4.7± 0.3	4.7± 0.3	4.6± 0.3
20 ppm	4.1± 0.3**	4.4± 0.5**	4.4± 0.3**	4.3± 0.3**	4.5± 0.3*	4.4± 0.4**	4.3± 0.6**
40 ppm	4.0± 0.3**	4.2± 0.4**	4.3± 0.3**	4.2± 0.4**	4.3± 0.4**	4.2± 0.3**	4.2± 0.3**
80 ppm	3.9± 0.3**	3.9± 0.4**	4.0± 0.3**	3.9± 0.3**	4.0± 0.4**	4.0± 0.3**	3.9± 0.4**

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

Test of Dunnett

(HAN260)

BAIS3



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	4.5± 0.2	4.7± 0.3	4.5± 0.4	4.5± 0.4	4.7± 0.5	4.7± 0.6	4.5± 0.9
20 ppm	4.2± 0.5**	4.4± 0.3**	4.3± 0.3**	4.2± 0.6**	4.5± 0.7	4.4± 0.6*	4.4± 0.7
40 ppm	4.0± 0.4**	4.2± 0.5**	4.2± 0.5**	4.1± 0.5**	4.5± 0.5	4.2± 0.5**	4.4± 0.4
80 ppm	3.8± 0.5**	4.0± 0.4**	3.8± 0.4**	3.8± 0.4**	4.0± 0.5**	4.1± 0.4**	3.9± 0.5**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	4.5± 0.8	4.6± 0.8
20 ppm	4.1± 1.1	4.2± 0.7*
40 ppm	4.3± 0.4	4.1± 0.6**
80 ppm	3.8± 0.7**	3.8± 0.5**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX D 2

FOOD CONSUMPTION CHANGES: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 7

Group Name	Administration 1-7(7)	week-day(effective) 2-7(7)	3-7(7)	4-7(7)	5-7(7)	6-7(7)	7-7(7)
Control	3.2± 0.3	3.2± 0.3	3.1± 0.3	3.4± 0.2	3.4± 0.2	3.6± 0.2	3.4± 0.3
40 ppm	3.0± 0.3*	3.2± 0.3	3.1± 0.2	3.3± 0.2	3.3± 0.2	3.5± 0.4	3.4± 0.4
80 ppm	3.0± 0.3	3.2± 0.3	3.1± 0.3	3.3± 0.3	3.3± 0.3	3.6± 0.3	3.4± 0.3
160 ppm	2.3± 0.3**	2.9± 0.4**	3.1± 0.3	3.1± 0.3**	3.1± 0.3**	3.3± 0.3**	3.2± 0.3**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 8

Group Name	Administration week-day(effective) 8-7(7)	9-7(7)	10-7(7)	11-7(7)	12-7(7)	13-7(7)	14-7(7)
Control	3.7± 0.3	3.6± 0.3	3.6± 0.3	3.5± 0.2	3.7± 0.3	3.8± 0.4	3.6± 0.4
40 ppm	3.6± 0.3	3.6± 0.3	3.4± 0.3*	3.4± 0.3	3.5± 0.3	3.6± 0.3**	3.5± 0.3
80 ppm	3.6± 0.3	3.5± 0.2	3.5± 0.3	3.4± 0.3	3.6± 0.3	3.5± 0.3**	3.4± 0.3*
160 ppm	3.3± 0.3**	3.2± 0.3**	3.2± 0.4**	3.2± 0.3**	3.2± 0.3**	3.2± 0.4**	3.2± 0.4**

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

Test of Dunnett

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration 18-7(7)	week-day(effective) 22-7(7)	26-7(7)	30-7(7)	34-7(7)	38-7(7)	42-7(7)
Control	3.9± 0.5	3.9± 0.4	4.0± 0.4	4.0± 0.4	4.0± 0.6	4.1± 0.5	4.1± 0.5
40 ppm	3.6± 0.3**	3.5± 0.3**	3.6± 0.3**	3.7± 0.4**	3.8± 0.3	3.5± 0.4**	3.6± 0.5**
80 ppm	3.6± 0.3**	3.5± 0.3**	3.6± 0.3**	3.5± 0.4**	3.7± 0.3**	3.4± 0.4**	3.5± 0.3**
160 ppm	3.4± 0.4**	3.3± 0.4**	3.4± 0.4**	3.4± 0.4**	3.4± 0.4**	3.3± 0.3**	3.5± 0.4**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett							

(HAN260)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration 46-7(7)	week-day(effective) 50-7(7)	54-7(7)	58-7(7)	62-7(7)	66-7(7)	70-7(7)
Control	4.2± 0.6	4.2± 0.5	4.3± 0.5	4.3± 0.5	4.2± 0.5	4.1± 0.5	4.1± 0.9
40 ppm	3.8± 0.4**	3.8± 0.4**	4.0± 0.4**	4.0± 0.5*	3.9± 0.5**	3.9± 0.6*	3.9± 0.4
80 ppm	3.7± 0.4**	3.8± 0.5**	3.8± 0.5**	3.8± 0.5**	3.7± 0.4**	3.7± 0.4**	3.6± 0.4**
160 ppm	3.6± 0.5**	3.6± 0.6**	3.8± 0.5**	3.5± 0.4**	3.5± 0.4**	3.5± 0.4**	3.4± 0.4**

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

Test of Dunnett

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7(7)	90-7(7)	94-7(7)	98-7(7)
Control	4.3± 0.7	4.4± 0.6	4.4± 0.4	4.2± 0.5	4.6± 0.6	4.5± 0.8	4.7± 0.7
40 ppm	3.8± 0.4**	3.9± 0.6**	3.9± 0.4**	3.7± 0.5**	3.9± 0.6**	3.8± 0.6**	4.1± 0.7**
80 ppm	3.5± 0.5**	3.8± 0.5**	3.8± 0.5**	3.7± 0.4**	4.1± 0.7**	3.8± 0.7**	3.8± 0.5**
160 ppm	3.3± 0.4**	3.5± 0.4**	3.5± 0.4**	3.4± 0.4**	3.6± 0.5**	3.5± 0.6**	3.3± 0.5**

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

Test of Dunnett

(HAN260)

BAIS3



STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day(effective)	
	102-7(7)	104-7(7)
Control	4.5± 1.0	4.5± 1.0
40 ppm	3.8± 0.7**	3.9± 0.4*
80 ppm	3.8± 0.6**	3.8± 0.5**
160 ppm	3.1± 0.6**	3.2± 0.5**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX E1

CHEMICAL INTAKE CHANGES: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 1

Group Name	Administration (weeks)									
	1	2	3	4	5	6	7			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
20 ppm	2.509± 0.556	2.274± 0.570	2.043± 0.511	2.034± 0.628	2.286± 0.523	1.961± 0.385	1.777± 0.411			
40 ppm	3.923± 0.736	3.590± 0.726	3.307± 0.665	3.258± 0.596	3.703± 0.817	3.208± 0.672	2.889± 0.564			
80 ppm	6.622± 0.811	5.744± 0.839	5.907± 1.353	5.661± 1.421	6.676± 1.132	5.293± 1.161	5.164± 1.091			

(HAN300)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 2

Group Name	Administration (weeks)									
	8	9	10	11	12	13	14			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
20 ppm	1.647± 0.412	1.583± 0.347	1.562± 0.292	1.488± 0.258	1.412± 0.251	1.346± 0.239	1.285± 0.290			
40 ppm	2.850± 0.646	2.914± 0.498	2.772± 0.478	2.673± 0.423	2.592± 0.371	2.500± 0.416	2.320± 0.425			
80 ppm	5.168± 1.070	5.088± 0.696	4.861± 0.785	4.942± 1.062	4.868± 1.286	4.558± 0.680	4.400± 0.817			

(HAN300)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 3

Group Name	Administration (weeks)													
	18		22		26		30		34		38		42	
Control	0.000±	0.000	0.000±	0.000	0.000±	0.000	0.000±	0.000	0.000±	0.000	0.000±	0.000	0.000±	0.000
20 ppm	1.264±	0.212	1.128±	0.174	1.224±	0.202	1.189±	0.183	1.189±	0.182	1.192±	0.209	1.060±	0.179
40 ppm	2.457±	0.409	2.138±	0.344	2.358±	0.477	2.328±	0.411	2.333±	0.352	2.315±	0.308	2.103±	0.294
80 ppm	4.518±	0.555	4.233±	0.876	4.404±	0.596	4.521±	0.655	4.553±	0.910	4.366±	0.693	4.090±	0.462

(HAN300)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration (weeks)						
	46	50	54	58	62	66	70
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
20 ppm	1.168± 0.182	1.150± 0.173	1.141± 0.212	1.137± 0.172	1.268± 0.198	1.141± 0.166	1.161± 0.182
40 ppm	2.268± 0.376	2.247± 0.373	2.239± 0.340	2.254± 0.396	2.371± 0.490	2.388± 1.012	2.432± 1.413
80 ppm	4.617± 0.493	4.589± 0.893	4.446± 0.648	4.524± 0.638	4.672± 0.741	4.367± 0.733	4.529± 0.979

(HAN300)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration (weeks)									
	74	78	82	86	90	94	98			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
20 ppm	1.168± 0.184	1.219± 0.243	1.265± 0.255	1.323± 0.247	1.423± 0.391	1.288± 0.230	1.348± 0.206			
40 ppm	2.259± 0.404	2.370± 0.583	2.550± 0.613	2.663± 0.782	2.840± 0.885	2.623± 0.595	2.601± 0.498			
80 ppm	4.517± 1.017	4.521± 0.663	4.820± 0.687	4.945± 0.701	5.399± 1.598	5.167± 1.017	5.049± 1.370			

(HAN300)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration (weeks)	
	102	104
Control	0.000± 0.000	0.000± 0.000
20 ppm	1.200± 0.334	1.302± 0.250
40 ppm	2.587± 0.664	2.789± 0.729
80 ppm	5.111± 1.001	5.517± 1.302



APPENDIX E2

CHEMICAL INTAKE CHANGES: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 7

Group Name	Administration (weeks)									
	1	2	3	4	5	6	7			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
40 ppm	4.637± 0.669	4.186± 0.628	4.113± 0.492	4.257± 0.714	4.217± 0.953	3.934± 1.117	3.800± 0.812			
80 ppm	7.711± 1.078	7.377± 1.746	7.364± 1.871	7.868± 2.080	8.364± 2.530	7.585± 2.058	7.339± 2.414			
160 ppm	10.695± 1.682	12.482± 1.798	11.585± 2.343	11.695± 2.197	12.769± 3.590	11.869± 4.420	10.925± 2.349			

(HAN300)

BAIS 3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 8

Group Name	Administration (weeks)									
	8	9	10	11	12	13	14			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
40 ppm	3.861± 1.202	3.694± 0.677	3.588± 0.702	3.813± 1.252	3.722± 1.272	3.833± 0.875	3.760± 0.843			
80 ppm	7.791± 2.680	7.258± 2.503	6.864± 2.019	7.490± 1.975	7.367± 1.669	6.744± 1.995	7.057± 4.150			
160 ppm	10.640± 2.378	11.185± 2.246	10.458± 2.555	11.572± 2.757	10.817± 2.236	10.985± 2.997	10.492± 2.098			

(HAN300)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration (weeks)									
	18	22	26	30	34	38	42			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
40 ppm	3.647± 0.903	3.477± 0.833	3.520± 0.590	3.738± 0.633	3.450± 0.565	3.533± 0.524	3.109± 0.428			
80 ppm	6.699± 2.600	6.517± 1.888	6.878± 1.583	6.633± 1.216	6.468± 0.868	6.475± 1.060	5.770± 0.792			
160 ppm	10.195± 1.784	9.760± 2.092	10.640± 1.832	11.307± 1.799	10.999± 1.559	11.343± 1.379	11.082± 1.761			

(HAN300)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration (weeks)						
	46	50	54	58	62	66	70
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
40 ppm	3.380± 0.614	3.051± 0.486	3.212± 0.753	3.014± 0.630	2.977± 0.507	3.047± 0.439	3.148± 0.480
80 ppm	6.346± 0.735	5.986± 0.957	6.342± 1.113	5.826± 1.137	5.895± 0.820	5.884± 0.804	6.022± 1.229
160 ppm	11.433± 1.829	11.200± 3.451	11.823± 2.477	10.927± 3.046	10.020± 1.458	10.838± 2.012	11.059± 2.260

(HAN300)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration (weeks)									
	74	78	82	86	90	94	98			
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000		
40 ppm	2.938± 0.470	2.991± 0.418	3.148± 0.445	3.123± 0.559	3.213± 0.511	3.426± 0.527	3.281± 0.509			
80 ppm	5.955± 1.254	6.202± 0.626	6.654± 1.060	6.646± 1.072	6.681± 1.346	6.288± 1.136	7.216± 1.593			
160 ppm	11.287± 2.395	11.824± 2.341	12.600± 2.782	12.398± 2.459	12.656± 2.652	12.402± 2.686	13.729± 3.027			

(HAN300)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration (weeks)	
	102	104
Control	0.000± 0.000	0.000± 0.000
40 ppm	3.321± 0.611	3.620± 0.847
80 ppm	6.598± 1.489	7.240± 1.451
160 ppm	13.258± 2.816	12.661± 2.399

(HAN300)

BAIS3

APPENDIX F 1

HEMATOLOGY: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : MALE

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 <sup>6</sup> /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 <sup>3</sup> /μl	
Control	28	9.49±	2.07	13.4±	2.3	42.2±	6.8	44.9±	3.1	14.3±	1.1	31.7±	1.8	1945±	375
20 ppm	28	8.87±	1.23	12.6±	1.7	39.7±	4.8	45.1±	4.3	14.3±	1.0	31.8±	1.1	1736±	518
40 ppm	35	9.36±	1.73	13.2±	1.9	41.4±	5.7	44.7±	3.1	14.2±	0.9	31.8±	1.8	1955±	464
80 ppm	39	9.17±	1.05	13.0±	1.5	40.8±	4.3	44.6±	1.8	14.2±	0.6	31.8±	1.2	2023±	457

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

Test of Dunnett

(HCL070)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : MALE

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	WBC 10 <sup>3</sup> /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHERS	
Control	28	3.49±	1.75	1±	1	31±	13	1±	1	0±	0	4±	2	59±	14	4±	3
20 ppm	28	3.05±	2.50	1±	1	30±	16	1±	1	0±	0	4±	2	57±	16	6±	11
40 ppm	35	2.44±	1.35*	1±	1	29±	13	1±	1	0±	0	4±	2	62±	13	3±	5
80 ppm	39	1.69±	1.30**	1±	1	33±	15	1±	4	0±	0	4±	2	58±	16	3±	3

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

APPENDIX F 2

HEMATOLOGY: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	RED BLOOD CELL 10 <sup>6</sup> /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 <sup>3</sup> /μl	
Control	22	9.08±	1.09	13.3±	1.6	41.3±	4.5	45.6±	2.0	14.7±	0.5	32.2±	1.8	1154±	343
40 ppm	34	9.02±	1.00	13.2±	1.3	41.2±	3.7	45.9±	2.1	14.6±	0.5	31.9±	1.2	1183±	306
80 ppm	25	8.87±	1.16	12.9±	1.5	40.8±	4.7	46.2±	2.8	14.6±	0.9	31.7±	1.3	1241±	273
160 ppm	20	8.91±	0.71	12.4±	0.9	39.6±	3.0	44.5±	0.9*	13.9±	0.3**	31.3±	0.9	921±	439

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

PAGE : 4

Group Name	NO. of Animals	WBC 10 <sup>3</sup> /μl		Differential N-BAND		WBC (%) N-SEG		EOSINO		BASO		MONO		LYMPHO		OTHERS	
Control	22	1.81±	0.85	1±	1	31±	11	2±	1	0±	0	4±	3	56±	14	7±	6
40 ppm	34	2.83±	3.27	1±	1	28±	13	1±	1	0±	0	5±	2	54±	14	11±	14
80 ppm	25	1.68±	0.99	1±	1	33±	18	1±	1**	0±	0	3±	1	57±	18	5±	4
160 ppm	20	0.90±	0.60**	2±	2	36±	17	1±	1	0±	0	5±	2	52±	18	5±	6

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

APPENDIX G 1

BIOCHEMISTRY: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : MALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	30	5.5±	0.7	2.9±	0.4	1.2±	0.2	0.19±	0.08	162±	42	139±	70	38±	15
20 ppm	28	5.3±	0.5	2.9±	0.3	1.2±	0.1	0.17±	0.06	189±	36	105±	25	43±	18
40 ppm	35	5.3±	0.6	2.9±	0.3	1.2±	0.1	0.23±	0.31	188±	46	111±	42*	45±	17
80 ppm	39	5.2±	0.9*	2.8±	0.4	1.3±	0.2	0.16±	0.02	178±	51	98±	34**	40±	18

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 1  
SEX : MALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)  
ALL ANIMALS (105W)

PAGE : 2

Group Name	NO. of Animals	GOT IU/ℓ		GPT IU/ℓ		LDH IU/ℓ		ALP IU/ℓ		CPK IU/ℓ		UREA NITROGEN mg/dℓ		SODIUM mEq/ℓ	
Control	30	293±	766	242±	562	947±	1570	245±	195	72±	62	24.1±	7.8	155±	3
20 ppm	28	111±	104	68±	97*	456±	430	229±	306	66±	59	19.6±	2.3**	154±	2
40 ppm	35	353±	1402*	159±	545**	1707±	6821*	170±	118	64±	37	20.5±	4.5*	154±	2
80 ppm	39	89±	82*	63±	137**	304±	187**	161±	86	74±	85	24.0±	14.1	155±	3

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3



STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 1  
SEX : MALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)  
ALL ANIMALS (105W)

PAGE : 3

Group Name	NO. of Animals	POTASSIUM mEq/ℓ		CHLORIDE mEq/ℓ		CALCIUM mg/dℓ		INORGANIC PHOSPHORUS mg/dℓ	
Control	30	4.4±	0.5	123±	4	9.3±	0.5	6.9±	1.6
20 ppm	28	4.4±	0.4	122±	3	9.2±	0.4	7.1±	1.2
40 ppm	35	4.3±	0.4	122±	3	9.2±	0.5	6.8±	1.0
80 ppm	39	4.3±	0.6	123±	3	9.1±	0.7	7.0±	1.0

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

APPENDIX G 2

BIOCHEMISTRY: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	23	5.1±	0.4	2.7±	0.2	1.2±	0.2	0.17±	0.05	151±	46	81±	27	38±	33
40 ppm	34	5.0±	0.7	2.8±	0.3	1.3±	0.3	0.17±	0.02	137±	33	80±	38	36±	23
80 ppm	25	4.7±	0.6	2.7±	0.3	1.4±	0.2**	0.18±	0.07	135±	39	70±	20	38±	39
160 ppm	22	4.9±	0.3	2.8±	0.2	1.4±	0.2**	0.19±	0.04**	124±	18**	64±	11	21±	10*

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

PAGE : 5

Group Name	NO. of Animals	GOT IU/ℓ		GPT IU/ℓ		LDH IU/ℓ		ALP IU/ℓ		CPK IU/ℓ		UREA NITROGEN mg/dℓ		SODIUM mEq/ℓ	
Control	23	161±	274	66±	110	566±	964	186±	103	77±	54	16.4±	6.0	152±	2
40 ppm	34	109±	62	39±	23	427±	535	240±	85	80±	78	19.0±	11.5	155±	3**
80 ppm	25	102±	55	32±	11	393±	431	244±	95	117±	156	20.0±	13.5	155±	3**
160 ppm	22	188±	197**	74±	87	419±	178	290±	86**	193±	222*	22.6±	8.1**	158±	5**

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 1  
SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)  
ALL ANIMALS (105W)

PAGE : 6

Group Name	NO. of Animals	POTASSIUM mEq/ℓ		CHLORIDE mEq/ℓ		CALCIUM mg/dℓ		INORGANIC PHOSPHORUS mg/dℓ	
Control	23	4.1±	0.3	124±	2	9.3±	0.6	6.6±	1.3
40 ppm	34	4.5±	0.4**	125±	4	9.4±	0.6	7.3±	1.4
80 ppm	25	4.4±	0.9	125±	3	9.2±	0.6	7.7±	1.9*
160 ppm	22	4.3±	0.5	125±	5	9.2±	0.4	8.8±	1.4**

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

APPENDIX H 1

URINALYSIS: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 2  
 SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Occult blood				CHI			
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+	-		±	+	2+
Control	31	0	5	11	11	2	2	0		0	0	25	6	0	0		31	0	0	0	0	0		16	14	1	0	0	0		27	1	1	0	2
20 ppm	31	0	19	12	0	0	0	0	**	0	0	15	13	3	0	*	31	0	0	0	0	0		4	14	10	3	0	0	**	28	0	0	0	3
40 ppm	36	0	26	9	1	0	0	0	**	0	0	14	21	1	0	**	36	0	0	0	0	0		2	14	15	5	0	0	**	35	0	0	0	1
80 ppm	41	0	35	6	0	0	0	0	**	0	1	17	22	1	0	**	41	0	0	0	0	0		6	12	14	9	0	0	**	40	0	0	0	1

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

Test of CHI SQUARE

(HCL101)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 2  
SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Urobilinogen					CHI
		±	+	2+	3+	4+	
Control	31	31	0	0	0	0	0
20 ppm	31	31	0	0	0	0	0
40 ppm	36	36	0	0	0	0	0
80 ppm	41	41	0	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS3



APPENDIX H 2

URINALYSIS: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 2  
SEX : FEMALE

# URINALYSIS

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Occult blood				CHI			
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		-	±	+	2+	3+		4+	-	±	+	2+		3+	4+	-	±	+		2+	3+	4+	-		±	+	2+
Control	27	0	4	4	8	10	1	0		0	0	14	10	3	0		27	0	0	0	0	0		15	10	2	0	0	0		23	1	2	1	0
40 ppm	37	0	13	6	7	11	0	0		0	0	7	29	1	0	**	37	0	0	0	0	0		11	20	6	0	0	0		35	0	0	0	2
80 ppm	30	0	10	11	3	4	2	0	*	0	0	6	22	2	0	*	30	0	0	0	0	0		10	13	7	0	0	0		27	0	1	0	2
160 ppm	26	0	11	4	4	5	2	0		0	0	3	18	5	0	**	26	0	0	0	0	0		8	11	6	1	0	0		22	2	0	1	1

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

Test of CHI SQUARE

(HCL101)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 2  
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Urobilinogen					CHI
		±	+	2+	3+	4+	
Control	27	27	0	0	0	0	0
40 ppm	37	37	0	0	0	0	0
80 ppm	30	30	0	0	0	0	0
160 ppm	26	26	0	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS3

APPENDIX I 1

GROSS FINDINGS: SUMMARY, MOUSE: MALE: ALL ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	20 ppm 50 (%)	40 ppm 50 (%)	80 ppm 50 (%)
skin/app	nodule		2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)
	ulcer		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	scab		4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
subcutis	mass		4 ( 8)	1 ( 2)	0 ( 0)	2 ( 4)
lung	red		0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)
	red zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		16 ( 32)	12 ( 24)	6 ( 12)	8 ( 16)
lymph node	enlarged		3 ( 6)	3 ( 6)	5 ( 10)	3 ( 6)
spleen	enlarged		4 ( 8)	1 ( 2)	2 ( 4)	3 ( 6)
	white zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	black zone		1 ( 2)	1 ( 2)	0 ( 0)	2 ( 4)
	nodule		2 ( 4)	2 ( 4)	0 ( 0)	0 ( 0)
	deformed		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 2)	1 ( 2)	0 ( 0)	1 ( 2)
heart	nodule		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)
oral cavity	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
stomach	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
cecum	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
	atrophic		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)
	red zone		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)

STUDY NO. : 0285  
 ANIMAL : MOUSE C-j:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	20 ppm 50 (%)	40 ppm 50 (%)	80 ppm 50 (%)
liver	nodule		38 ( 76)	23 ( 46)	21 ( 42)	12 ( 24)
	rough		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)
bile duct	dilated		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
pancreas	nodule		1 ( 2)	1 ( 2)	0 ( 0)	1 ( 2)
	nodular		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
kidney	enlarged		0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)
	atrophic		1 ( 2)	0 ( 0)	3 ( 6)	2 ( 4)
	pale		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	1 ( 2)	2 ( 4)
	hydronephrosis		3 ( 6)	1 ( 2)	6 ( 12)	1 ( 2)
ureter	dilated		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
urin bladd	nodule		1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)
	urine:marked retention		3 ( 6)	0 ( 0)	2 ( 4)	0 ( 0)
	urine:black		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
testis	atrophic		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
	red		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
epididymis	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
semin ves	red zone		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
prostate	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
prep/cLi gl	nodule		13 ( 26)	7 ( 14)	3 ( 6)	8 ( 16)

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	20 ppm 50 (%)	40 ppm 50 (%)	80 ppm 50 (%)
periph nerv	nodule		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
Harder gl	enlarged		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
muscle	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
pleura	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
mediastinum	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
abdominal c	hemorrhage		1 ( 2)	0 ( 0)	1 ( 2)	1 ( 2)
	ascites		1 ( 2)	1 ( 2)	3 ( 6)	2 ( 4)
thoracic ca	hemorrhage		0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)
	pleural fluid		4 ( 8)	0 ( 0)	1 ( 2)	1 ( 2)
other	tail:nodule		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)

APPENDIX 12

GROSS FINDINGS: SUMMARY, MOUSE: FEMALE: ALL ANIMALS

( 2-YEAR STUDY )



STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	40 ppm 50 (%)	80 ppm 50 (%)	160 ppm 50 (%)
skin/app	scab		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
subcutis	edema		4 ( 8)	2 ( 4)	4 ( 8)	0 ( 0)
	mass		0 ( 0)	4 ( 8)	2 ( 4)	1 ( 2)
lung	red		0 ( 0)	2 ( 4)	0 ( 0)	1 ( 2)
	red zone		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)
	nodule		2 ( 4)	1 ( 2)	1 ( 2)	0 ( 0)
lymph node	enlarged		9 ( 18)	6 ( 12)	8 ( 16)	6 ( 12)
	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
spleen	enlarged		10 ( 20)	6 ( 12)	8 ( 16)	1 ( 2)
	black zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	deformed		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
stomach	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
cecum	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
liver	enlarged		3 ( 6)	4 ( 8)	1 ( 2)	0 ( 0)
	white zone		6 ( 12)	2 ( 4)	2 ( 4)	0 ( 0)
	red zone		0 ( 0)	0 ( 0)	2 ( 4)	3 ( 6)
	yellow zone		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	nodule		10 ( 20)	17 ( 34)	19 ( 38)	24 ( 48)
	cyst		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	rough		2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	40 ppm 50 (%)	80 ppm 50 (%)	160 ppm 50 (%)
kidney	enlarged		1 ( 2)	1 ( 2)	1 ( 2)	0 ( 0)
	atrophic		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	hydronephrosis		2 ( 4)	2 ( 4)	1 ( 2)	2 ( 4)
urin bladd	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	urine:marked retention		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
pituitary	enlarged		4 ( 8)	1 ( 2)	1 ( 2)	0 ( 0)
	red zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)
ovary	enlarged		7 ( 14)	0 ( 0)	6 ( 12)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	cyst		5 ( 10)	6 ( 12)	7 ( 14)	6 ( 12)
uterus	enlarged		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		8 ( 16)	6 ( 12)	6 ( 12)	3 ( 6)
	cyst		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
spinal cord	brown zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
Harder gl	enlarged		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		0 ( 0)	1 ( 2)	2 ( 4)	0 ( 0)
mediastinum	mass		3 ( 6)	0 ( 0)	2 ( 4)	1 ( 2)
peritoneum	thick		1 ( 2)	0 ( 0)	3 ( 6)	0 ( 0)
retroperit	mass		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
abdominal c	hemorrhage		2 ( 4)	3 ( 6)	1 ( 2)	0 ( 0)

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control	40 ppm	80 ppm	160 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
abdominal c	mass		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	ascites		10 ( 20)	5 ( 10)	6 ( 12)	3 ( 6)
thoracic ca	hemorrhage		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	pleural fluid		8 ( 16)	4 ( 8)	10 ( 20)	3 ( 6)
other	tail:nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	forelimb:nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nose:nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)

(HPT080)

BAIS 3

APPENDIX 13

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

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control 19 (%)	20 ppm 20 (%)	40 ppm 14 (%)	80 ppm 10 (%)
skin/app	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	ulcer		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	scab		2 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
subcutis	mass		3 ( 16)	0 ( 0)	0 ( 0)	1 ( 10)
lung	red		0 ( 0)	2 ( 10)	0 ( 0)	0 ( 0)
	red zone		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		8 ( 42)	9 ( 45)	1 ( 7)	1 ( 10)
lymph node	enlarged		2 ( 11)	0 ( 0)	3 ( 21)	3 ( 30)
spleen	enlarged		4 ( 21)	0 ( 0)	2 ( 14)	3 ( 30)
	white zone		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	black zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)
	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	deformed		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
heart	nodule		1 ( 5)	0 ( 0)	0 ( 0)	1 ( 10)
stomach	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 7)	1 ( 10)
	atrophic		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		1 ( 5)	0 ( 0)	0 ( 0)	1 ( 10)
	red zone		0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)
	nodule		12 ( 63)	9 ( 45)	4 ( 29)	2 ( 20)
	rough		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 18 (%)	20 ppm 20 (%)	40 ppm 14 (%)	80 ppm 10 (%)
bile duct	dilated		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)
pancreas	nodule		1 ( 5)	1 ( 5)	0 ( 0)	1 ( 10)
	nodular		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
kidney	enlarged		0 ( 0)	2 ( 10)	0 ( 0)	0 ( 0)
	pale		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	1 ( 7)	2 ( 20)
	hydronephrosis		0 ( 0)	1 ( 5)	6 ( 43)	1 ( 10)
ureter	dilated		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)
urin bladd	nodule		1 ( 5)	0 ( 0)	0 ( 0)	2 ( 20)
	urine:marked retention		3 ( 16)	0 ( 0)	2 ( 14)	0 ( 0)
	urine:black		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
testis	red		0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)
epididymis	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
semin ves	red zone		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
prostate	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
prep/cli gl	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
periph nerv	nodule		0 ( 0)	1 ( 5)	1 ( 7)	0 ( 0)
Harder gl	enlarged		1 ( 5)	0 ( 0)	0 ( 0)	1 ( 10)
pleura	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)
mediastinum	nodule		1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
abdominal c	hemorrhage		1 ( 5)	0 ( 0)	1 ( 7)	1 ( 10)
	ascites		1 ( 5)	1 ( 5)	3 ( 21)	2 ( 20)

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	20 ppm	40 ppm	80 ppm
			19 (%)	20 (%)	14 (%)	10 (%)
thoracic ca	hemorrhage		0 ( 0)	2 ( 10)	0 ( 0)	0 ( 0)
	pleural fluid		4 ( 21)	0 ( 0)	1 ( 7)	1 ( 10)

(HPT080)

BAIS3

## APPENDIX 14

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

( 2-YEAR STUDY )



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 24 (%)	40 ppm 13 (%)	80 ppm 21 (%)	160 ppm 27 (%)
skin/app	scab		0 ( 0)	1 ( 8)	0 ( 0)	0 ( 0)
subcutis	edema		4 ( 17)	2 ( 15)	4 ( 19)	0 ( 0)
	mass		0 ( 0)	1 ( 8)	1 ( 5)	0 ( 0)
lung	red		0 ( 0)	2 ( 15)	0 ( 0)	1 ( 4)
	red zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)
	nodule		0 ( 0)	1 ( 8)	0 ( 0)	0 ( 0)
lymph node	enlarged		7 ( 29)	3 ( 23)	5 ( 24)	5 ( 19)
	nodule		0 ( 0)	1 ( 8)	0 ( 0)	0 ( 0)
spleen	enlarged		9 ( 38)	3 ( 23)	8 ( 38)	1 ( 4)
	black zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)
stomach	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
liver	enlarged		3 ( 13)	3 ( 23)	1 ( 5)	0 ( 0)
	white zone		6 ( 25)	2 ( 15)	2 ( 10)	0 ( 0)
	red zone		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 7)
	yellow zone		0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)
	nodule		4 ( 17)	3 ( 23)	6 ( 29)	9 ( 33)
	rough		1 ( 4)	1 ( 8)	0 ( 0)	0 ( 0)
kidney	enlarged		1 ( 4)	0 ( 0)	1 ( 5)	0 ( 0)
	atrophic		0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)
	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	hydronephrosis		2 ( 8)	1 ( 8)	1 ( 5)	2 ( 7)

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control 24 (%)	40 ppm 13 (%)	80 ppm 21 (%)	160 ppm 27 (%)
urin bladd	urine:marked retention		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
pituitary	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
ovary	enlarged		7 ( 29)	0 ( 0)	4 ( 19)	0 ( 0)
	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	cyst		1 ( 4)	2 ( 15)	1 ( 5)	2 ( 7)
uterus	enlarged		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		7 ( 29)	3 ( 23)	5 ( 24)	2 ( 7)
spinal cord	brown zone		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
Harder gl	enlarged		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)
mediastinum	mass		3 ( 13)	0 ( 0)	2 ( 10)	1 ( 4)
peritoneum	thick		1 ( 4)	0 ( 0)	1 ( 5)	0 ( 0)
abdominal c	hemorrhage		2 ( 8)	3 ( 23)	1 ( 5)	0 ( 0)
	ascites		7 ( 29)	3 ( 23)	4 ( 19)	3 ( 11)
thoracic ca	hemorrhage		1 ( 4)	1 ( 8)	0 ( 0)	0 ( 0)
	pleural fluid		8 ( 33)	4 ( 31)	8 ( 38)	3 ( 11)

## APPENDIX 15

GROSS FINDINGS: SUMMARY, MOUSE : MALE : SACRIFICED ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

GROSS FINDINGS (SUMMARY)  
 SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control 31 (%)	20 ppm 30 (%)	40 ppm 36 (%)	80 ppm 40 (%)
skin/app	nodule		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)
	scab		2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)
subcutis	mass		1 ( 3)	1 ( 3)	0 ( 0)	1 ( 3)
lung	nodule		8 ( 26)	3 ( 10)	5 ( 14)	7 ( 18)
lymph node	enlarged		1 ( 3)	3 ( 10)	2 ( 6)	0 ( 0)
spleen	enlarged		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	black zone		1 ( 3)	1 ( 3)	0 ( 0)	1 ( 3)
	nodule		1 ( 3)	2 ( 7)	0 ( 0)	0 ( 0)
	accentuation of white pulp		0 ( 0)	1 ( 3)	0 ( 0)	1 ( 3)
oral cavity	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
cecum	nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
liver	red zone		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		26 ( 84)	14 ( 47)	17 ( 47)	10 ( 25)
kidney	atrophic		1 ( 3)	0 ( 0)	3 ( 8)	2 ( 5)
	hydronephrosis		3 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
testis	atrophic		0 ( 0)	1 ( 3)	1 ( 3)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
semin ves	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
prep/cli gl	nodule		12 ( 39)	7 ( 23)	3 ( 8)	8 ( 20)
Harder gl	nodule		0 ( 0)	0 ( 0)	1 ( 3)	1 ( 3)
muscle	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
other	tail:nodule		1 ( 3)	0 ( 0)	0 ( 0)	1 ( 3)

## APPENDIX 16

GROSS FINDINGS: SUMMARY, MOUSE : FEMALE : SACRIFICED ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 26 (%)	40 ppm 37 (%)	80 ppm 29 (%)	160 ppm 23 (%)
subcutis	mass		0 ( 0)	3 ( 8)	1 ( 3)	1 ( 4)
lung	red zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)
	nodule		2 ( 8)	0 ( 0)	1 ( 3)	0 ( 0)
lymph node	enlarged		2 ( 8)	3 ( 8)	3 ( 10)	1 ( 4)
spleen	enlarged		1 ( 4)	3 ( 8)	0 ( 0)	0 ( 0)
	deformed		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
cecum	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
liver	enlarged		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	red zone		0 ( 0)	0 ( 0)	2 ( 7)	1 ( 4)
	nodule		6 ( 23)	14 ( 38)	13 ( 45)	15 ( 65)
	cyst		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)
	rough		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
kidney	enlarged		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	atrophic		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	hydronephrosis		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
urin bladd	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
pituitary	enlarged		4 ( 15)	1 ( 3)	1 ( 3)	0 ( 0)
	red zone		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	nodule		2 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
ovary	enlarged		0 ( 0)	0 ( 0)	2 ( 7)	0 ( 0)
	cyst		4 ( 15)	4 ( 11)	6 ( 21)	4 ( 17)

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	40 ppm	80 ppm	160 ppm
			26 (%)	37 (%)	29 (%)	23 (%)
uterus	nodule		1 ( 4)	3 ( 8)	1 ( 3)	1 ( 4)
	cyst		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
Harder gl	nodule		0 ( 0)	1 ( 3)	2 ( 7)	0 ( 0)
peritoneum	thick		0 ( 0)	0 ( 0)	2 ( 7)	0 ( 0)
retroperit	mass		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
abdominal c	mass		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	ascites		3 ( 12)	2 ( 5)	2 ( 7)	0 ( 0)
thoracic ca	pleural fluid		0 ( 0)	0 ( 0)	2 ( 7)	0 ( 0)
other	tail:nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	forelimb:nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	nose:nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)

APPENDIX J 1

ORGAN WEIGHT , ABSOLUTE: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE  
 UNIT: g

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

PAGE : 1

Group Name	NO. of Animals	Body Weight	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	31	46.3± 9.0	0.014± 0.003	0.240± 0.039	0.231± 0.022	0.269± 0.144	0.791± 0.601
20 ppm	30	44.4± 6.2	0.013± 0.003	0.243± 0.059	0.217± 0.027*	0.235± 0.088	0.643± 0.053
40 ppm	36	38.7± 5.8**	0.013± 0.003	0.233± 0.049	0.205± 0.016**	0.230± 0.133**	0.608± 0.055**
80 ppm	40	33.3± 4.9**	0.013± 0.003	0.223± 0.039	0.187± 0.020**	0.240± 0.180**	0.575± 0.065**

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

(HCL040)

BAIS3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE  
UNIT: g

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	31	0.133±	0.090	2.502±	1.018	0.447±	0.018
20 ppm	30	0.203±	0.272	1.873±	0.679	0.452±	0.019
40 ppm	36	0.092±	0.047	1.691±	0.510**	0.441±	0.015
80 ppm	40	0.086±	0.095**	1.484±	0.398**	0.442±	0.015

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

Test of Dunnett

(HCL040)

BAIS3

APPENDIX J 2

ORGAN WEIGHT , ABSOLUTE: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: g

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

PAGE : 3

Group Name	NO. of Animals	Body Weight	ADRENALS		OVARIES		HEART		LUNGS		KIDNEYS	
Control	26	36.8± 7.2	0.016±	0.003	0.054±	0.026	0.205±	0.063	0.219±	0.033	0.479±	0.123
40 ppm	37	28.3± 2.6**	0.015±	0.002	0.052±	0.035	0.161±	0.023**	0.212±	0.061	0.667±	1.037
80 ppm	29	26.5± 3.0**	0.015±	0.003	0.105±	0.201	0.158±	0.019**	0.193±	0.018**	0.435±	0.043
160 ppm	23	21.7± 2.6**	0.012±	0.003**	0.058±	0.087*	0.134±	0.020**	0.179±	0.018**	0.385±	0.042**

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

(HCL040)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: g

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	26	0.255±	0.405	1.655±	0.426	0.479±	0.035
40 ppm	37	0.300±	0.615	1.573±	1.046*	0.466±	0.017
80 ppm	29	0.111±	0.048*	1.308±	0.320**	0.458±	0.018**
160 ppm	23	0.092±	0.076**	1.027±	0.222**	0.445±	0.019**

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

Test of Dunnett

(HCL040)

BAIS 3

APPENDIX K 1

ORGAN WEIGHT, RELATIVE: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE  
 UNIT: %

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

PAGE : 1

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	31	46.3± 9.0	0.033± 0.011	0.539± 0.141	0.517± 0.105	0.621± 0.441	1.714± 1.083
20 ppm	30	44.4± 6.2	0.031± 0.008	0.560± 0.166	0.496± 0.084	0.538± 0.206	1.475± 0.232
40 ppm	36	38.7± 5.8**	0.034± 0.011	0.614± 0.158	0.541± 0.085	0.626± 0.514	1.599± 0.257
80 ppm	40	33.3± 4.9**	0.038± 0.008*	0.678± 0.114**	0.568± 0.068*	0.762± 0.735**	1.741± 0.137**

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

Test of Dunnett

(HCL042)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE  
UNIT: %

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	31	0.301± 0.209	5.793± 3.137	1.008± 0.239
20 ppm	30	0.503± 0.742	4.327± 1.843	1.040± 0.174
40 ppm	36	0.249± 0.152	4.528± 1.879	1.166± 0.186**
80 ppm	40	0.265± 0.323	4.549± 1.484	1.362± 0.244**

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

Test of Dunnett

(HCL042)

BAIS 3



APPENDIX K 2

ORGAN WEIGHT, RELATIVE: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE  
 UNIT: %

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

PAGE : 3

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	26	36.8± 7.2	0.044± 0.010	0.149± 0.068	0.572± 0.210	0.610± 0.132	1.343± 0.456
40 ppm	37	28.3± 2.6**	0.052± 0.009*	0.183± 0.115	0.570± 0.073	0.752± 0.207**	2.333± 3.456**
80 ppm	29	26.5± 3.0**	0.056± 0.013**	0.392± 0.749**	0.601± 0.079**	0.733± 0.073**	1.657± 0.189**
160 ppm	23	21.7± 2.6**	0.057± 0.014**	0.252± 0.374	0.618± 0.065**	0.829± 0.094**	1.780± 0.118**

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

Test of Dunnett

(HCL042)

BAIS 3

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	26	0.678± 0.967	4.541± 0.986	1.339± 0.229
40 ppm	37	1.072± 2.219	5.539± 3.386	1.656± 0.141**
80 ppm	29	0.420± 0.169	4.923± 0.934	1.748± 0.178**
160 ppm	23	0.410± 0.313	4.746± 0.939	2.071± 0.211**
Significant difference : * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Dunnett				
(HCL042)				BAIS 3

APPENDIX L 1

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				20 ppm 50				40 ppm 50				80 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																		
skin/app	inflammation		<50>				<50>				<50>				<50>			
			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 )	( 0 )	( 0 )
	hyperplasia:epidermis		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 )
	scab		3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	epidermal cyst		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 )
subcutis	xanthogranuloma		<50>				<50>				<50>				<50>			
			1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Respiratory system]																		
nasal cavit	eosinophilic change:olfactory epithelium		<50>				<50>				<50>				<50>			
			24	9	0	0	19	6	0	0	16	4	0	0 *	8	5	0	0 **
			( 48 )	( 18 )	( 0 )	( 0 )	( 38 )	( 12 )	( 0 )	( 0 )	( 32 )	( 8 )	( 0 )	( 0 )	( 16 )	( 10 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 2

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 50				40 ppm 50				80 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavit	eosinophilic change:respiratory epithelium	19 ( 38)	8 ( 16)	0 ( 0)	0 ( 0)	7 ( 14)	0 ( 0)	1 ( 2)	0 ** ( 0)	6 ( 12)	3 ( 6)	0 ( 0)	0 ** ( 0)	8 ( 16)	3 ( 6)	0 ( 0)	0 ** ( 0)
	inflammation:olfactory epithelium	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)	0 ( 0)	0 ( 0)	0 ( 0)
	respiratory metaplasia:olfactory epithelium	24 ( 48)	5 ( 10)	0 ( 0)	0 ( 0)	10 ( 20)	0 ( 0)	0 ( 0)	0 ** ( 0)	6 ( 12)	0 ( 0)	0 ( 0)	0 ** ( 0)	2 ( 4)	1 ( 2)	0 ( 0)	0 ** ( 0)
	respiratory metaplasia:gland	12 ( 24)	16 ( 32)	3 ( 6)	0 ( 0)	8 ( 16)	3 ( 6)	0 ( 0)	0 ** ( 0)	8 ( 16)	1 ( 2)	0 ( 0)	0 ** ( 0)	3 ( 6)	2 ( 4)	0 ( 0)	0 ** ( 0)
nasopharynx	eosinophilic change	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
lung	congestion	2 ( 4)	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)
	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 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study				Control 50				20 ppm 50				40 ppm 50				80 ppm 50			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
Lung	inflammation	<50>				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 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammatory infiltration	1	0	0	0	( 2 )	( 0 )	( 0 )	( 0 )	0	0	0	0	0	0	0	0	0	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	bronchiolar-alveolar cell hyperplasia	1	0	0	0	( 2 )	( 0 )	( 0 )	( 0 )	0	2	0	0	1	1	0	0	1	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 2 )	( 2 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
[Hematopoietic system]																					
bone marrow	plasma cell hyperplasia	<50>				0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
Lymph node	lymphadenitis	<50>				0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
spleen	atrophy	<50>				0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Cj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control 50				20 ppm 50				40 ppm 50				80 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<50>				<50>				<50>				<50>			
	deposit of melanin	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	plasma cell hyperplasia	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	extramedullary hematopoiesis	1 ( 2 )	7 ( 14 )	0 ( 0 )	0 ( 0 )	6 ( 12 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	4 ( 8 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 * ( 0 )
	follicular hyperplasia	1 ( 2 )	3 ( 6 )	1 ( 2 )	0 ( 0 )	2 ( 4 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )
[Circulatory system]																	
heart		<50>				<50>				<50>				<50>			
	mineralization	4 ( 8 )	1 ( 2 )	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 )
	arteritis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
artery/aort		<50>				<50>				<50>				<50>			
	arteritis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

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



STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 5

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 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			
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			
<hr/>																					
[Digestive system]																					
tooth			<50>				<50>				<50>				<50>						
	dysplasia		18	15	2	0	13	0	0	0	**	9	1	0	0	**	8	1	0	0	**
			( 36)	( 30)	( 4)	( 0)	( 26)	( 0)	( 0)	( 0)	( 0)	( 18)	( 2)	( 0)	( 0)	( 0)	( 16)	( 2)	( 0)	( 0)	( 0)
	xanthogranuloma		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
tongue			<50>				<50>				<50>				<50>						
	arteritis		0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
salivary gl			<50>				<50>				<50>				<50>						
	obstruction		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
stomach			<50>				<50>				<50>				<50>						
	mineralization		19	0	0	0	20	0	0	0	0	14	0	0	0	0	17	0	0	0	0
			( 38)	( 0)	( 0)	( 0)	( 40)	( 0)	( 0)	( 0)	( 0)	( 28)	( 0)	( 0)	( 0)	( 0)	( 34)	( 0)	( 0)	( 0)	( 0)
	hyperplasia:forestomach		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	erosion:glandular stomach		0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				20 ppm 50				40 ppm 50				80 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
stomach	hyperplasia:glandular stomach	<50>				<50>				<50>				<50>				<50>			
		2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		( 4)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
Liver	angiectasis	<50>				<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	necrosis:central	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
		( 0)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)
	necrosis:focal	0	1	0	0	0	3	0	0	0	1	1	0	0	1	0	0	0	1	0	0
		( 0)	( 2)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 2)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)
	fatty change	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	fatty change:central	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammatory infiltration	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	granulation	2	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	2	0	0
		( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 7

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 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		1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus		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 )
bile duct			<50>				<50>				<50>				<50>			
	dilatation		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	atrophy		0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	infarct		2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
	cyst		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 )	

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	hyaline droplet		2	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			( 4)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)
	basophilic change		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	deposit of hemosiderin		1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammatory infiltration		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)	
lymphocytic infiltration		2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	
		( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	
inflammatory polyp		0	0	0	0	0	1	0	0	0	3	0	0	2	0	0	0	
		( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	
vacuolization of proximal tubule		38	0	0	0	39	0	0	0	31	0	0	0	34	0	0	0	
		( 76)	( 0)	( 0)	( 0)	( 78)	( 0)	( 0)	( 0)	( 62)	( 0)	( 0)	( 0)	( 68)	( 0)	( 0)	( 0)	
hydronephrosis		0	0	3	0	0	1	1	0	1	5	3	0	1	3	2	0	
		( 0)	( 0)	( 6)	( 0)	( 0)	( 2)	( 2)	( 0)	( 2)	( 10)	( 6)	( 0)	( 2)	( 6)	( 4)	( 0)	

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

STUDY NO. : 0285  
 ANIMAL : MOUSE C-j:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				20 ppm 50				40 ppm 50				80 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney	pyelitis		<50>				<50>				<50>				<50>			
			0	0	0	0	0	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 )
	pyelonephritis		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	tubular necrosis		1	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )
	mineralization:papilla		3	0	0	0	3	1	0	0	2	0	0	0	2	0	0	0
			( 6 )	( 0 )	( 0 )	( 0 )	( 6 )	( 2 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	mineralization:pelvis		1	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )
	mineralization:cortex		34	0	0	0	32	0	0	0	20	0	0	0 **	17	0	0	0 **
			( 68 )	( 0 )	( 0 )	( 0 )	( 64 )	( 0 )	( 0 )	( 0 )	( 40 )	( 0 )	( 0 )	( 0 )	( 34 )	( 0 )	( 0 )	( 0 )
	glomerulosclerosis		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 )
	desquamation:pelvis		0	0	0	0	0	0	0	0	1	3	0	0	6	6	0	0 **
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 6 )	( 0 )	( 0 )	( 12 )	( 12 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 10

		Group Name	Control				20 ppm				40 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
[Urinary system]																		
kidney	mineralization:inner stripe,outer medulla		<50>				<50>				<50>				<50>			
		5	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	
		( 10)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	
urin bladd	xanthogranuloma		<50>				<50>				<50>				<50>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
		( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	
[Endocrine system]																		
pituitary	cyst		<50>				<49>				<48>				<50>			
		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)	
	Rathke pouch		<50>				<49>				<48>				<50>			
		2	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	
		( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	
adrenal	spindle-cell hyperplasia		<50>				<50>				<50>				<50>			
		8	0	0	0	7	0	0	0	12	0	0	0	10	0	0	0	
		( 16)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)	( 24)	( 0)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)	
	hyperplasia:cortical cell		<50>				<50>				<50>				<50>			
		5	0	0	0	8	0	0	0	3	0	0	0	6	0	0	0	
		( 10)	( 0)	( 0)	( 0)	( 16)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	

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

STUDY NO. : 0285  
ANIMAL : MOUSE C<sub>3</sub>H/BDF<sub>1</sub>  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study				Control 50				20 ppm 50				40 ppm 50				80 ppm 50			
		Grade				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																					
adrenal	hyperplasia:medulla	<50>				<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Reproductive system]																					
testis	atrophy	<50>				<50>				<50>				<50>				<50>			
		10	1	0	0	13	0	0	0	9	2	0	0	12	0	0	0	12	0	0	0
		( 20 )	( 2 )	( 0 )	( 0 )	( 26 )	( 0 )	( 0 )	( 0 )	( 18 )	( 4 )	( 0 )	( 0 )	( 24 )	( 0 )	( 0 )	( 0 )	( 24 )	( 0 )	( 0 )	( 0 )
	mineralization	40	0	0	0	33	2	0	0	26	0	0	0 **	7	0	0	0	7	0	0	0 **
		( 80 )	( 0 )	( 0 )	( 0 )	( 66 )	( 4 )	( 0 )	( 0 )	( 52 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )
	dysplasia	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	xanthogranuloma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )
epididymis	inflammatory infiltration	<50>				<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 12

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
[Reproductive system]																		
epididymis			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	spermatogenic granuloma		2	0	0	0	4	0	0	0	5	0	0	0	4	0	0	0
			( 4 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )
semin ves			<50>				<50>				<50>				<50>			
	mineralization		0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	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 )
prostate			<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 )
prep/cli gl			<50>				<50>				<50>				<50>			
	duct ectasia		14	0	0	0	6	0	0	0	4	0	0	0 *	8	0	0	0
			( 28 )	( 0 )	( 0 )	( 0 )	( 12 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )
	inflammation		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 13

		Group Name	Control				20 ppm				40 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
Organ_____	Findings_____	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Nervous system]																		
brain	mineralization		<50>				<50>				<50>				<50>			
		29 ( 58)	0 ( 0)	0 ( 0)	0 ( 0)	29 ( 58)	0 ( 0)	0 ( 0)	0 ( 0)	24 ( 48)	0 ( 0)	0 ( 0)	0 ( 0)	22 ( 44)	0 ( 0)	0 ( 0)	0 ( 0)	
[Special sense organs/appendage]																		
eye	mineralization		<50>				<50>				<50>				<50>			
		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)	
Harder gl	degeneration		<50>				<49>				<50>				<50>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
	lymphocytic infiltration		<50>				<50>				<50>				<50>			
		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
nasolacr d	hyperplasia		<50>				<50>				<50>				<50>			
		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	
	inflammation		<50>				<50>				<50>				<50>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 14

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 50				40 ppm 50				80 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Musculoskeletal system]

		<50>				<50>				<50>				<50>			
muscle	mineralization	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )

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

(HPT150)

BAIS3

APPENDIX L 2

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

STUDY NO. : 0285  
 ANIMAL : MOUSE C<sub>7</sub>:BDF<sub>1</sub>  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Control Grade				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app	inflammation	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )
	scab	<50>				<50>				<50>				<50>			
		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
subcutis	xanthogranuloma	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Respiratory system]																	
nasal cavit	eosinophilic change:olfactory epithelium	<50>				<50>				<50>				<50>			
		5	2	0	0	10	1	0	0	6	0	1	0	10	0	0	0
		( 10 )	( 4 )	( 0 )	( 0 )	( 20 )	( 2 )	( 0 )	( 0 )	( 12 )	( 0 )	( 2 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )
	eosinophilic change:respiratory epithelium	<50>				<50>				<50>				<50>			
		13	9	3	0	15	18	2	0	21	16	2	0 *	16	19	1	0 *
		( 26 )	( 18 )	( 6 )	( 0 )	( 30 )	( 36 )	( 4 )	( 0 )	( 42 )	( 32 )	( 4 )	( 0 )	( 32 )	( 38 )	( 2 )	( 0 )
	respiratory metaplasia:olfactory epithelium	<50>				<50>				<50>				<50>			
		3	0	0	0	7	0	0	0	0	0	0	0	2	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study Control Grade				40 ppm 50				80 ppm 50				160 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>			
	respiratory metaplasia:gland	5 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	14 ( 28)	4 ( 8)	0 ( 0)	0 ** ( 0)	12 ( 24)	9 ( 18)	0 ( 0)	0 ** ( 0)	15 ( 30)	0 ( 0)	0 ( 0)	0 * ( 0)
	xanthogranuloma	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
nasopharynx		<50>				<50>				<50>				<50>			
	eosinophilic change	1 ( 2)	2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
lung		<50>				<50>				<50>				<50>			
	congestion	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	edema	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)
	inflammatory infiltration	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	lymphocytic infiltration	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
Lung		<50>				<50>				<50>				<50>			
	bronchiolar-alveolar cell hyperplasia	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 )
[Hematopoietic system]																	
bone marrow		<50>				<50>				<50>				<50>			
	myelofibrosis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulopoiesis:increased	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 )
Lymph node		<50>				<50>				<50>				<50>			
	deposit of amyloid	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	lymphadenitis	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
spleen		<50>				<50>				<50>				<50>			
	atrophy	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	4 ( 8 )	0 * ( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<50>				<50>				<50>				<50>			
	deposit of melanin	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	inflammatory infiltration	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	plasma cell hyperplasia	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	extramedullary hematopoiesis	9	4	0	0	4	3	0	0	7	4	0	0	1	4	0	0 *
		( 18 )	( 8 )	( 0 )	( 0 )	( 8 )	( 6 )	( 0 )	( 0 )	( 14 )	( 8 )	( 0 )	( 0 )	( 2 )	( 8 )	( 0 )	( 0 )
	engorgement of erythrocyte	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	follicular hyperplasia	6	1	0	0	3	5	0	0	2	1	0	0	0	0	0	0 *
		( 12 )	( 2 )	( 0 )	( 0 )	( 6 )	( 10 )	( 0 )	( 0 )	( 4 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

[Circulatory system]

heart	mineralization	<50>				<50>				<50>				<50>			
		4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 19

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				40 ppm 50				80 ppm 50				160 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Circulatory system]																		
heart	arteritis		<50>				<50>				<50>				<50>			
		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	
artery/aort	arteritis		<50>				<50>				<50>				<50>			
		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	
[Digestive system]																		
tooth	dysplasia		<50>				<50>				<50>				<50>			
		1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
tongue	arteritis		<50>				<49>				<50>				<50>			
		1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
salivary gl	lymphocytic infiltration		<50>				<50>				<50>				<50>			
		1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
esophagus	squamous cell hyperplasia		<50>				<49>				<50>				<49>			
		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 )	

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



STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
stomach	mineralization	11 ( 22)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 12)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:forestomach	0 ( 0)	1 ( 2)	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)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	erosion:glandular stomach	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	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)
	hyperplasia: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)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
small intes	inflammation	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	angiectasis	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	3 ( 6)	0 ( 0)	0 ( 0)	1 ( 2)	4 ( 8)	2 ( 4)	0 ( 0)	1 ( 2)	4 ( 8)	4 ( 8)	1 ( 2)				

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 21

Organ_____	Findings_____	Group Name	Control				40 ppm				80 ppm				160 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
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
[Digestive system]																		
Liver			<50>				<50>				<50>				<50>			
	necrosis:central		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	necrosis:focal		1 ( 2 )	2 ( 4 )	1 ( 2 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )
	inflammatory infiltration		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulation		10 ( 20 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	12 ( 24 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	2 ( 4 )	0 ( 0 )	0 * ( 0 )	3 ( 6 )	1 ( 2 )	0 ( 0 )	0 * ( 0 )
	clear cell focus		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )
	acidophilic cell focus		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )
	vacuolated cell focus		0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 22

Organ_____	Findings_____	Group Name	Control				40 ppm				80 ppm				160 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

biliary cyst

<50>

0000

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

<50>

0000

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

<50>

0000

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

<50>

0100

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

intestinal metaplasia:bile duct

1000

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

0000

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

0000

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

0000

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

[Urinary system]

kidney

cyst

<50>

0000

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

<50>

0000

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

<50>

0000

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

<50>

0010

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

hyaline droplet

1000

( 20 ) ( 0 ) ( 0 ) ( 0 )

6000

( 12 ) ( 0 ) ( 0 ) ( 0 )

1100

( 22 ) ( 0 ) ( 0 ) ( 0 )

0100

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

deposit of hemosiderin

0000

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

0000

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

1000

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

0000

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

inflammatory infiltration

0000

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

0100

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

0000

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

0000

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

lymphocytic infiltration

3000

( 6 ) ( 0 ) ( 0 ) ( 0 )

2000

( 4 ) ( 0 ) ( 0 ) ( 0 )

0000

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

0000

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

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																					
kidney		<50>				<50>				<50>				<50>				<50>			
	inflammatory polyp	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )
	hydronephrosis	0 ( 0 )	1 ( 2 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	1 ( 2 )	2 ( 4 )	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 )
	tubular necrosis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	papillary necrosis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mineralization:papilla	8 ( 16 )	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 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mineralization:cortex	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	desquamation:pelvis	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	11 ( 22 )	11 ( 22 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	7 ( 14 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	4 ( 8 )	2 ( 4 )	0 ( 0 )	0 ( 0 )
	urothelial hyperplasia:pelvis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE C-j:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 24

Organ	Findings	Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney	mineralization:inner stripe,outer medulla		<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
urin bladd	Lymphocytic infiltration		<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Endocrine system]																		
pituitary	angiectasis		<49>				<50>				<50>				<50>			
		0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	cyst		3	0	0	0	3	0	0	0	5	0	0	0	1	0	0	0
			( 6 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	hyperplasia		1	0	0	0	8	1	0	0 *	3	0	0	0	1	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 16 )	( 2 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	Rathke pouch		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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 25

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
thyroid		<50>				<49>				<50>				<48>			
	focal follicular cell hyperplasia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
adrenal		<50>				<50>				<50>				<50>			
	spindle-cell hyperplasia	25	4	0	0	35	2	0	0	28	8	0	0	29	2	0	0
		( 50 )	( 8 )	( 0 )	( 0 )	( 70 )	( 4 )	( 0 )	( 0 )	( 56 )	( 16 )	( 0 )	( 0 )	( 58 )	( 4 )	( 0 )	( 0 )
	hyperplasia:cortical cell	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	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 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	focal fatty change:cortex	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Reproductive system]																	
ovary		<50>				<50>				<50>				<50>			
	thrombus	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 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 26

Organ	Findings	Control 50				40 ppm 50				80 ppm 50				160 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																	
ovary	cyst	<50>				<50>				<50>				<50>			
		4	0	0	0	2	1	0	0	8	0	0	0	5	0	0	0
		( 8)	( 0)	( 0)	( 0)	( 4)	( 2)	( 0)	( 0)	( 16)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
uterus	dilatation	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	cystic endometrial hyperplasia	12	1	0	0	26	1	0	0 *	17	1	0	0	16	0	0	0
		( 24)	( 2)	( 0)	( 0)	( 52)	( 2)	( 0)	( 0)	( 34)	( 2)	( 0)	( 0)	( 32)	( 0)	( 0)	( 0)
mammary gl	galactoceles	<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)
[Nervous system]																	
brain	mineralization	<50>				<50>				<50>				<50>			
		24	0	0	0	17	0	0	0	15	0	0	0	9	0	0	0 **
		( 48)	( 0)	( 0)	( 0)	( 34)	( 0)	( 0)	( 0)	( 30)	( 0)	( 0)	( 0)	( 18)	( 0)	( 0)	( 0)
[Special sense organs/appendage]																	
eye	mineralization	<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 27

		Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appendage]																		
Harder gl			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
[Musculoskeletal system]																		
muscle			<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																		
(HPT150)																		

BAIS3



APPENDIX L 3

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

STUDY NO. : 0285  
 ANIMAL : MOUSE C-j:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 20				40 ppm 14				80 ppm 10			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app	inflammation	<19>				<20>				<14>				<10>			
		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 5)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	scab	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 11)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
subcutis	xanthogranuloma	<19>				<20>				<14>				<10>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 5)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
[Respiratory system]																	
nasal cavit	eosinophilic change:olfactory epithelium	<19>				<20>				<14>				<10>			
		8	3	0	0	7	1	0	0	1	3	0	0	0	1	0	0 *
		( 42)	( 16)	( 0)	( 0)	( 35)	( 5)	( 0)	( 0)	( 7)	( 21)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)
	eosinophilic change:respiratory epithelium	7	1	0	0	4	0	1	0	2	2	0	0	2	0	0	0
		( 37)	( 5)	( 0)	( 0)	( 20)	( 0)	( 5)	( 0)	( 14)	( 14)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)
	inflammation:olfactory epithelium	0	0	0	0	0	2	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)

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 2

Organ	Findings	Control 19				20 ppm 20				40 ppm 14				80 ppm 10			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavit		<19>				<20>				<14>				<10>			
	respiratory metaplasia:olfactory epithelium	8 ( 42)	1 ( 5)	0 ( 0)	0 ( 0)	3 ( 15)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 * ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)
		<19>				<20>				<14>				<10>			
	respiratory metaplasia:gland	4 ( 21)	5 ( 26)	1 ( 5)	0 ( 0)	3 ( 15)	1 ( 5)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 * ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 * ( 0)
nasopharynx		<19>				<20>				<14>				<10>			
	eosinophilic change	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
lung		<19>				<20>				<14>				<10>			
	congestion	2 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
		<19>				<20>				<14>				<10>			
	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 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
		<19>				<20>				<14>				<10>			
	inflammation	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
		<19>				<20>				<14>				<10>			
	inflammatory infiltration	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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

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

b b : Number of animals with lesion

( c ) c : b / a \* 100

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Control Grade				20 ppm 20				40 ppm 14				80 ppm 10			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
lung	bronchiolar-alveolar cell hyperplasia	<19>				<20>				<14>				<10>			
		0	0	0	0	0	1	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 )
[Hematopoietic system]																	
bone marrow	plasma cell hyperplasia	<19>				<20>				<14>				<10>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
lymph node	lymphadenitis	<19>				<20>				<14>				<10>			
		0	0	0	0	1	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 )
spleen	atrophy	<19>				<20>				<14>				<10>			
		0	0	0	0	0	0	2	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 )
	deposit of melanin	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )
	plasma cell hyperplasia	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 4

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 ppm			
		No. of Animals on Study	19				20				14				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
spleen			<19>				<20>				<14>				<10>			
	extramedullary hematopoiesis		1	4	0	0	2	3	0	0	1	2	0	0	1	0	0	0
			( 5)	( 21)	( 0)	( 0)	( 10)	( 15)	( 0)	( 0)	( 7)	( 14)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
	follicular hyperplasia		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
[Circulatory system]																		
heart			<19>				<20>				<14>				<10>			
	mineralization		3	1	0	0	3	0	0	0	1	0	0	0	1	0	0	0
			( 16)	( 5)	( 0)	( 0)	( 15)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
	arteritis		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
artery/aort			<19>				<20>				<14>				<10>			
	arteritis		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)
[Digestive system]																		
tooth			<19>				<20>				<14>				<10>			
	dysplasia		9	3	1	0	3	0	0	0 **	0	0	0	0 **	0	1	0	0 *
			( 47)	( 16)	( 5)	( 0)	( 15)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)

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

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

b b : Number of animals with lesion

( c ) c : b / a \* 100

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 5

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 ppm			
		No. of Animals on Study	19				20				14				10			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
salivary gl	obstruction		<19>				<20>				<14>				<10>			
		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
stomach	mineralization		<19>				<20>				<14>				<10>			
		5	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0
		( 26 )	( 0 )	( 0 )	( 0 )	( 30 )	( 0 )	( 0 )	( 0 )	( 43 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	erosion:glandular stomach		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia: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 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
liver	necrosis:central		<19>				<20>				<14>				<10>			
		0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 5 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )
	necrosis:focal		0	1	0	0	0	2	0	0	0	1	1	0	0	1	0	0
		( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 7 )	( 7 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )
	fatty change		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 11 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study Control 19				20 ppm 20				40 ppm 14				80 ppm 10			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
liver		<19>				<20>				<14>				<10>			
	fatty change:central	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammatory infiltration	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
bile duct		<19>				<20>				<14>				<10>			
	dilatation	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )
[Urinary system]																	
kidney		<19>				<20>				<14>				<10>			
	infarct	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyaline droplet	2	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
		( 11 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )
	basophilic change	0	0	0	0	0	1	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 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Control Grade				20 ppm 20				40 ppm 14				80 ppm 10			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney	deposit of hemosiderin	<19>				<20>				<14>				<10>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 5)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammatory infiltration	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 5)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammatory polyp	0	0	0	0	0	1	0	0	0	3	0	0	1	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)	( 21)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
	vacuolization of proximal tubule	9	0	0	0	12	0	0	0	3	0	0	0	4	0	0	0
		( 47)	( 0)	( 0)	( 0)	( 60)	( 0)	( 0)	( 0)	( 21)	( 0)	( 0)	( 0)	( 40)	( 0)	( 0)	( 0)
	hydronephrosis	0	0	0	0	0	1	1	0	0	2	3	0 *	0	1	2	0 *
		( 0)	( 0)	( 0)	( 0)	( 0)	( 5)	( 5)	( 0)	( 0)	( 14)	( 21)	( 0)	( 0)	( 10)	( 20)	( 0)
	pyelitis	0	0	0	0	0	0	1	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)
	pyelonephritis	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)
	tubular necrosis	1	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0
		( 5)	( 0)	( 0)	( 0)	( 5)	( 5)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade	Control 19				20 ppm 20				40 ppm 14				80 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney	mineralization:papilla		<19>				<20>				<14>				<10>			
			0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )
	mineralization:pelvis		0	0	0	0	1	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 )
	mineralization:cortex		10	0	0	0	10	0	0	0	0	0	0	0 **	2	0	0	0
			( 53 )	( 0 )	( 0 )	( 0 )	( 50 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )
	glomerulosclerosis		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	desquamation:pelvis		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )
	mineralization:inner stripe,outer medulla		2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
			( 11 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
urin bladd	xanthogranuloma		<19>				<20>				<14>				<10>			
			0	0	0	0	1	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 )
[Endocrine system]																		
adrenal	spindle-cell hyperplasia		<19>				<20>				<14>				<10>			
			3	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
			( 16 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 9

Organ_____	Findings_____	Group Name	Control				20 ppm				40 ppm				80 ppm			
		No. of Animals on Study	19				20				14				10			
Grade		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
[Endocrine system]																		
adrenal		<19>				<20>				<14>				<10>				
	hyperplasia:cortical cell	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
[Reproductive system]																		
testis		<19>				<20>				<14>				<10>				
	atrophy	2 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	
	mineralization	13 ( 68)	0 ( 0)	0 ( 0)	0 ( 0)	11 ( 55)	1 ( 5)	0 ( 0)	0 ( 0)	5 ( 36)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)	0 ( 0)	0 ( 0)	0 * ( 0)	
	dysplasia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	
	epididymis		<19>				<20>				<14>				<10>			
	inflammatory infiltration	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
	spermatogenic granuloma	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade	Control 19				20 ppm 20				40 ppm 14				80 ppm 10			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Reproductive system]																		
semin ves	mineralization		<19>				<20>				<14>				<10>			
			0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
prostate	inflammation		<19>				<20>				<14>				<10>			
			1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
prep/cli gl	duct ectasia		<19>				<20>				<14>				<10>			
			2 ( 11 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
[Nervous system]																		
brain	mineralization		<19>				<20>				<14>				<10>			
			9 ( 47 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	11 ( 55 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 43 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 30 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
[Special sense organs/appendage]																		
Harder gl	degeneration		<19>				<20>				<14>				<10>			
			0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
Grade	1 : Slight      2 : Moderate      3 : Marked      4 : Severe																	
< a >	a : Number of animals examined at the site																	
b	b : Number of animals with lesion																	
( c )	c : b / a * 100																	
Significant difference :    * : P ≤ 0.05    ** : P ≤ 0.01    Test of Chi Square																		

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade	Control 19				20 ppm 20				40 ppm 14				80 ppm 10			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Special sense organs/appendage]

Harder gl	hyperplasia	<19>				<20>				<14>				<10>			
		0	0	0	0	1	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 )

[Musculoskeletal system]

muscle	mineralization	<19>				<20>				<14>				<10>			
		2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		( 11 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )

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

## APPENDIX L 4

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 12

		Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	24				13				21				27			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																		
skin/app			<24>				<13>				<21>				<27>			
	inflammation		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )
	scab		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
[Respiratory system]																		
nasal cavit			<24>				<13>				<21>				<27>			
	eosinophilic change:olfactory epithelium		2 ( 8 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	2 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 19 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	7 ( 26 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	eosinophilic change:respiratory epithelium		5 ( 21 )	5 ( 21 )	2 ( 8 )	0 ( 0 )	5 ( 38 )	2 ( 15 )	0 ( 0 )	0 ( 0 )	12 ( 57 )	3 ( 14 )	1 ( 5 )	0 ( 0 )	10 ( 37 )	9 ( 33 )	0 ( 0 )	0 ( 0 )
	respiratory metaplasia:olfactory epithelium		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	respiratory metaplasia:gland		4 ( 17 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	5 ( 24 )	2 ( 10 )	0 ( 0 )	0 ( 0 )	5 ( 19 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
nasopharynx			<24>				<13>				<21>				<27>			
	eosinophilic change		0 ( 0 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Gr: BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 13

Organ_____	Findings_____	Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	24				13				21				27			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
lung			<24>				<13>				<21>				<27>			
	congestion		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	edema		1	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 )
	Lymphocytic infiltration		1	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 )
[Hematopoietic system]																		
bone marrow			<24>				<13>				<21>				<27>			
	myelofibrosis		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	granulopoiesis:increased		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
Lymph node			<24>				<13>				<21>				<27>			
	deposit of amyloid		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 )	( 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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control 24				40 ppm 13				80 ppm 21				160 ppm 27			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
Lymph node			<24>				<13>				<21>				<27>			
	Lymphadenitis		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
spleen			<24>				<13>				<21>				<27>			
	atrophy		0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0 *
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 11 )	( 15 )	( 0 )
	deposit of melanin		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	inflammatory infiltration		0	0	0	0	0	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 )
	plasma cell hyperplasia		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 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	extramedullary hematopoiesis		6	4	0	0	1	3	0	0	5	4	0	0	1	3	0	0
			( 25 )	( 17 )	( 0 )	( 0 )	( 8 )	( 23 )	( 0 )	( 0 )	( 24 )	( 19 )	( 0 )	( 0 )	( 4 )	( 11 )	( 0 )	( 0 )
	engorgement of erythrocyte		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

[Circulatory system]

heart	mineralization	<24>				<13>				<21>				<27>			
		3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 13 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 15

Organ_____	Findings_____	Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	24				13				21				27			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																		
heart	arteritis		<24>				<13>				<21>				<27>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
artery/aort	arteritis		<24>				<13>				<21>				<27>			
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
[Digestive system]																		
tooth	dysplasia		<24>				<13>				<21>				<27>			
		0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
tongue	arteritis		<24>				<12>				<21>				<27>			
		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )
stomach	mineralization		<24>				<13>				<21>				<27>			
		3	0	0	0	0	1	0	0	0	4	0	0	0	1	0	0	0
			( 13 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 19 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )
	inflammatory infiltration		0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 16

Organ_____	Findings_____	Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	24				13				21				27			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
[Digestive system]																		
stomach			<24>				<13>				<21>				<27>			
	hyperplasia:forestomach		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
small intes			<24>				<13>				<21>				<27>			
	inflammation		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 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
liver			<24>				<13>				<21>				<27>			
	angiectasis		0	0	0	0	0	1	0	0	0	0	1	0	0	2	1	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 7 )	( 4 )
	necrosis:central		0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	necrosis:focal		0	2	0	0	1	1	0	0	1	1	0	0	0	2	0	0
			( 0 )	( 8 )	( 0 )	( 0 )	( 8 )	( 8 )	( 0 )	( 0 )	( 5 )	( 5 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )
inflammatory infiltration		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	
granulation		0	1	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 )	

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Control Grade				40 ppm 13				80 ppm 21				160 ppm 27			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
liver		<24>				<13>				<21>				<27>			
	acidophilic cell focus	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
[Urinary system]																	
kidney		<24>				<13>				<21>				<27>			
	cyst	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )
	hyaline droplet	9 ( 38 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 31 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	9 ( 43 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ** ( 0 )
	inflammatory infiltration	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	inflammatory polyp	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 )	0 ( 0 )	1 ( 4 )	0 ( 0 )
	hydronephrosis	0 ( 0 )	1 ( 4 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	2 ( 7 )	0 ( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 13				80 ppm 21				160 ppm 27			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<24>				<13>				<21>				<27>			
	tubular necrosis	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 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	mineralization:papilla	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 11 )	( 0 )	( 0 )	( 0 )
	mineralization:cortex	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	desquamation:pelvis	2	0	0	0	3	2	0	0 *	1	0	0	0	2	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 23 )	( 15 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
[Endocrine system]																	
pituitary		<23>				<13>				<21>				<27>			
	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 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	Rathke pouch	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
adrenal		<24>				<13>				<21>				<27>			
	spindle-cell hyperplasia	9	0	0	0	3	0	0	0	9	1	0	0	12	0	0	0
		( 38 )	( 0 )	( 0 )	( 0 )	( 23 )	( 0 )	( 0 )	( 0 )	( 43 )	( 5 )	( 0 )	( 0 )	( 44 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 19

Organ	Findings	Group Name No. of Animals on Study Control Grade				40 ppm 13				80 ppm 21				160 ppm 27			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																	
ovary	thrombus	<24>				<13>				<21>				<27>			
		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 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	cyst	<24>				<13>				<21>				<27>			
		0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
uterus	cystic endometrial hyperplasia	<24>				<13>				<21>				<27>			
		2	0	0	0	6	0	0	0 *	2	0	0	0	5	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 46 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 19 )	( 0 )	( 0 )	( 0 )
[Nervous system]																	
brain	mineralization	<24>				<13>				<21>				<27>			
		8	0	0	0	4	0	0	0	7	0	0	0	3	0	0	0
		( 33 )	( 0 )	( 0 )	( 0 )	( 31 )	( 0 )	( 0 )	( 0 )	( 33 )	( 0 )	( 0 )	( 0 )	( 11 )	( 0 )	( 0 )	( 0 )
[Musculoskeletal system]																	
muscle	mineralization	<24>				<13>				<21>				<27>			
		1	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 )

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

APPENDIX L 5

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 1

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 31				20 ppm 30				40 ppm 36				80 ppm 40			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Integumentary system/appandage]

skin/app		<31>				<30>				<36>				<40>			
hyperplasia:epidermis		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)	( 0)	( 0)	( 0)	( 0)
scab		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
epidermal cyst		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
subcutis		<31>				<30>				<36>				<40>			
xanthogranuloma		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)

[Respiratory system]

nasal cavit		<31>				<30>				<36>				<40>			
eosinophilic change:olfactory epithelium		16	6	0	0	12	5	0	0	15	1	0	0 *	8	4	0	0 **
		( 52)	( 19)	( 0)	( 0)	( 40)	( 17)	( 0)	( 0)	( 42)	( 3)	( 0)	( 0)	( 20)	( 10)	( 0)	( 0)
eosinophilic change:respiratory epithelium		12	7	0	0	3	0	0	0 **	4	1	0	0 **	6	3	0	0 **
		( 39)	( 23)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 11)	( 3)	( 0)	( 0)	( 15)	( 8)	( 0)	( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavit	respiratory metaplasia:olfactory epithelium	<31>				<30>				<36>				<40>			
		16	4	0	0	7	0	0	0 **	6	0	0	0 **	2	0	0	0 **
		( 52)	( 13)	( 0)	( 0)	( 23)	( 0)	( 0)	( 0)	( 17)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)
	respiratory metaplasia:gland	<31>				<30>				<36>				<40>			
		8	11	2	0	5	2	0	0 **	7	1	0	0 **	3	2	0	0 **
		( 26)	( 35)	( 6)	( 0)	( 17)	( 7)	( 0)	( 0)	( 19)	( 3)	( 0)	( 0)	( 8)	( 5)	( 0)	( 0)
nasopharynx	eosinophilic change	<31>				<30>				<36>				<40>			
		0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0
		( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 3)	( 0)	( 0)
lung	inflammation	<31>				<30>				<36>				<40>			
		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)
	bronchiolar-alveolar cell hyperplasia	<31>				<30>				<36>				<40>			
		1	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0
		( 3)	( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 3)	( 3)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)
[Hematopoietic system]																	
spleen	deposit of melanin	<31>				<30>				<36>				<40>			
		1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		( 3)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<31>				<30>				<36>				<40>			
	extramedullary hematopoiesis	0	3	0	0	4	0	0	0 *	3	2	0	0	0	0	0	0
		( 0 )	( 10 )	( 0 )	( 0 )	( 13 )	( 0 )	( 0 )	( 0 )	( 8 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	follicular hyperplasia	1	3	1	0	2	4	0	0	2	3	0	0	0	1	1	0
		( 3 )	( 10 )	( 3 )	( 0 )	( 7 )	( 13 )	( 0 )	( 0 )	( 6 )	( 8 )	( 0 )	( 0 )	( 0 )	( 3 )	( 3 )	( 0 )
[Circulatory system]																	
heart		<31>				<30>				<36>				<40>			
	mineralization	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	arteritis	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
artery/aort		<31>				<30>				<36>				<40>			
	arteritis	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 )
[Digestive system]																	
tooth		<31>				<30>				<36>				<40>			
	dysplasia	9	12	1	0	10	0	0	0 **	9	1	0	0 **	8	0	0	0 **
		( 29 )	( 39 )	( 3 )	( 0 )	( 33 )	( 0 )	( 0 )	( 0 )	( 25 )	( 3 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control 31				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
tooth		<31>				<30>				<36>				<40>			
	xanthogranuloma	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )
tongue		<31>				<30>				<36>				<40>			
	arteritis	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
stomach		<31>				<30>				<36>				<40>			
	mineralization	14	0	0	0	14	0	0	0	8	0	0	0	17	0	0	0
		( 45 )	( 0 )	( 0 )	( 0 )	( 47 )	( 0 )	( 0 )	( 0 )	( 22 )	( 0 )	( 0 )	( 0 )	( 43 )	( 0 )	( 0 )	( 0 )
	hyperplasia:forestomach	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )
	erosion:glandular stomach	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
	hyperplasia:glandular stomach	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
liver		<31>				<30>				<36>				<40>			
	angiectasis	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study Control 31 Grade				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
liver		<31>				<30>				<36>				<40>			
	necrosis:central	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	necrosis:focal	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 )
	granulation	2	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )
	clear cell focus	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0
		( 3 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 3 )	( 3 )	( 0 )	( 0 )	( 0 )
	basophilic cell focus	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 )
bile duct		<31>				<30>				<36>				<40>			
	dilatation	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )
[Urinary system]																	
kidney		<31>				<30>				<36>				<40>			
	atrophy	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 6

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<31>				<30>				<36>				<40>			
	infarct	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	cyst	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)
	deposit of hemosiderin	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)	0 ( 0)	0 ( 0)	0 ( 0)
	Lymphocytic infiltration	2 ( 6)	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)
	inflammatory polyp	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)
	vacuolization of proximal tubule	29 ( 94)	0 ( 0)	0 ( 0)	0 ( 0)	27 ( 90)	0 ( 0)	0 ( 0)	0 ( 0)	28 ( 78)	0 ( 0)	0 ( 0)	0 ( 0)	30 ( 75)	0 ( 0)	0 ( 0)	0 ( 0)
	hydronephrosis	0 ( 0)	0 ( 0)	3 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	3 ( 8)	0 ( 0)	0 ( 0)	1 ( 3)	2 ( 5)	0 ( 0)	0 ( 0)
	mineralization:papilla	3 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 7)	1 ( 3)	0 ( 0)	0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Control 31 Grade				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<31>				<30>				<36>				<40>			
	mineralization:pelvis	1	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0
		( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
	mineralization:cortex	24	0	0	0	22	0	0	0	20	0	0	0	15	0	0	0 **
		( 77)	( 0)	( 0)	( 0)	( 73)	( 0)	( 0)	( 0)	( 56)	( 0)	( 0)	( 0)	( 38)	( 0)	( 0)	( 0)
	desquamation:pelvis	0	0	0	0	0	0	0	0	1	2	0	0	5	6	0	0 **
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 6)	( 0)	( 0)	( 13)	( 15)	( 0)	( 0)
	mineralization:inner stripe,outer medulla	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)
[Endocrine system]																	
pituitary		<31>				<30>				<36>				<40>			
	cyst	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)
	Rathke pouch	2	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
		( 6)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)
adrenal		<31>				<30>				<36>				<40>			
	spindle-cell hyperplasia	5	0	0	0	6	0	0	0	11	0	0	0	10	0	0	0
		( 16)	( 0)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)	( 31)	( 0)	( 0)	( 0)	( 25)	( 0)	( 0)	( 0)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

Organ	Findings	Control No. of Animals on Study Grade				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
adrenal		<31>				<30>				<36>				<40>			
	hyperplasia:cortical cell	4 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)	8 ( 27)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 15)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:medulla	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)
[Reproductive system]																	
testis		<31>				<30>				<36>				<40>			
	atrophy	8 ( 26)	1 ( 3)	0 ( 0)	0 ( 0)	13 ( 43)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 25)	2 ( 6)	0 ( 0)	0 ( 0)	10 ( 25)	0 ( 0)	0 ( 0)	0 ( 0)
	mineralization	27 ( 87)	0 ( 0)	0 ( 0)	0 ( 0)	22 ( 73)	1 ( 3)	0 ( 0)	0 ( 0)	21 ( 58)	0 ( 0)	0 ( 0)	0 ( 0)	5 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)
	xanthogranuloma	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
epididymis		<31>				<30>				<36>				<40>			
	lymphocytic infiltration	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)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade				Control 31				20 ppm 30				40 ppm 36				80 ppm 40			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																					
epididymis		<31>				<30>				<36>				<40>							
	spermatogenic granuloma	2	0	0	0	2	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
semin ves		<31>				<30>				<36>				<40>							
	mineralization	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
prep/cli gl		<31>				<30>				<36>				<40>							
	duct ectasia	12	0	0	0	6	0	0	0	3	0	0	0 **	8	0	0	0	0	0	0	0
		( 39 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammation	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Nervous system]																					
brain		<31>				<30>				<36>				<40>							
	mineralization	20	0	0	0	18	0	0	0	18	0	0	0	19	0	0	0	0	0	0	0
		( 65 )	( 0 )	( 0 )	( 0 )	( 60 )	( 0 )	( 0 )	( 0 )	( 50 )	( 0 )	( 0 )	( 0 )	( 48 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Special sense organs/appendage]																					
eye		<31>				<30>				<36>				<40>							
	mineralization	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 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 : Number of animals with lesion  
( c ) c : b / a \* 100  
Significant difference : \* : P ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study Grade	Control 31				20 ppm 30				40 ppm 36				80 ppm 40			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appendage]																		
Harder gl	Lymphocytic infiltration		<31>				<28>				<36>				<40>			
			1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
			( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 11 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia		<31>				<28>				<36>				<40>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )
nasolacr d	inflammation		<31>				<30>				<36>				<40>			
			0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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



APPENDIX L 6

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 11

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app	scab	<26>				<37>				<29>				<23>			
		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 )
subcutis	xanthogranuloma	<26>				<37>				<29>				<23>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Respiratory system]																	
nasal cavit	eosinophilic change:olfactory epithelium	<26>				<37>				<29>				<23>			
		3	1	0	0	8	1	0	0	2	0	0	0	3	0	0	0
		( 12 )	( 4 )	( 0 )	( 0 )	( 22 )	( 3 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 13 )	( 0 )	( 0 )	( 0 )
	eosinophilic change:respiratory epithelium	8	4	1	0	10	16	2	0	9	13	1	0	6	10	1	0
		( 31 )	( 15 )	( 4 )	( 0 )	( 27 )	( 43 )	( 5 )	( 0 )	( 31 )	( 45 )	( 3 )	( 0 )	( 26 )	( 43 )	( 4 )	( 0 )
	respiratory metaplasia:olfactory epithelium	3	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0
		( 12 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 9 )	( 0 )	( 0 )	( 0 )
	respiratory metaplasia:gland	1	0	0	0	12	4	0	0 **	7	7	0	0 **	10	0	0	0 **
		( 4 )	( 0 )	( 0 )	( 0 )	( 32 )	( 11 )	( 0 )	( 0 )	( 24 )	( 24 )	( 0 )	( 0 )	( 43 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Control 26 Grade				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavity		<26>				<37>				<29>				<23>			
	xanthogranuloma	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 )
nasopharynx		<26>				<37>				<29>				<23>			
	eosinophilic change	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 4 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
lung		<26>				<37>				<29>				<23>			
	inflammatory infiltration	2	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 )
	bronchiolar-alveolar cell hyperplasia	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Hematopoietic system]																	
bone marrow		<26>				<37>				<29>				<23>			
	myelofibrosis	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
lymph node		<26>				<37>				<29>				<23>			
	lymphadenitis	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 13

Organ_____	Findings_____	Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	26				37				29				23			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																		
spleen			<26>				<37>				<29>				<23>			
	deposit of melanin		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	extramedullary hematopoiesis		3	0	0	0	3	0	0	0	2	0	0	0	0	1	0	0
			( 12 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )
	follicular hyperplasia		6	1	0	0	3	5	0	0	2	1	0	0	0	0	0	0 *
			( 23 )	( 4 )	( 0 )	( 0 )	( 8 )	( 14 )	( 0 )	( 0 )	( 7 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Circulatory system]																		
heart			<26>				<37>				<29>				<23>			
	mineralization		1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Digestive system]																		
tooth			<26>				<37>				<29>				<23>			
	dysplasia		1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
			( 4 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 14

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
salivary gl		<26>				<37>				<29>				<23>			
	Lymphocytic infiltration	1	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
esophagus		<26>				<37>				<29>				<23>			
	squamous cell hyperplasia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
stomach		<26>				<37>				<29>				<23>			
	mineralization	8	0	0	0	8	0	0	0	2	0	0	0	2	0	0	0
		( 31 )	( 0 )	( 0 )	( 0 )	( 22 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 9 )	( 0 )	( 0 )	( 0 )
		<26>				<37>				<29>				<23>			
	hyperplasia:forestomach	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 4 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
		<26>				<37>				<29>				<23>			
	erosion:glandular stomach	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
		<26>				<37>				<29>				<23>			
	hyperplasia:glandular stomach	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 )
liver		<26>				<37>				<29>				<23>			
	angiectasis	1	1	0	0	2	2	0	0	1	4	1	0	1	2	3	1
		( 4 )	( 4 )	( 0 )	( 0 )	( 5 )	( 5 )	( 0 )	( 0 )	( 3 )	( 14 )	( 3 )	( 0 )	( 4 )	( 9 )	( 13 )	( 4 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 15

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<26>				<37>				<29>				<23>			
	necrosis:focal	1 ( 4)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	granulation	10 ( 38)	3 ( 12)	0 ( 0)	0 ( 0)	12 ( 32)	2 ( 5)	0 ( 0)	0 ( 0)	2 ( 7)	2 ( 7)	0 ( 0)	0 * ( 0)	3 ( 13)	1 ( 4)	0 ( 0)	0 ( 0)
	clear cell focus	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 8)	1 ( 3)	1 ( 3)	0 ( 0)	4 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)	1 ( 4)	0 ( 0)
	acidophilic cell focus	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 7)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	basophilic cell focus	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)	1 ( 4)	0 ( 0)	0 ( 0)
	vacuolated cell focus	0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
	biliary cyst	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
	intestinal metaplasia:bile duct	1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study Grade				Control 26				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																					
kidney		<26>				<37>				<29>				<23>							
	hyaline droplet	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	deposit of hemosiderin	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	lymphocytic infiltration	3 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	inflammatory polyp	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hydronephrosis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	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 )
	papillary necrosis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mineralization:papilla	7 ( 27 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ** ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ** ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mineralization:cortex	1 ( 4 )	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name	Control				40 ppm				80 ppm				160 ppm			
		No. of Animals on Study	26				37				29				23			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney			<26>				<37>				<29>				<23>			
	desquamation:pelvis		1	0	0	0	8	9	0	0 **	6	4	0	0 *	2	2	0	0
			( 4 )	( 0 )	( 0 )	( 0 )	( 22 )	( 24 )	( 0 )	( 0 )	( 21 )	( 14 )	( 0 )	( 0 )	( 9 )	( 9 )	( 0 )	( 0 )
	urothelial hyperplasia:pelvis		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 )
	mineralization:inner stripe,outer medulla		1	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 )
urin bladd			<26>				<37>				<29>				<23>			
	lymphocytic infiltration		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Endocrine system]																		
pituitary			<26>				<37>				<29>				<23>			
	angiectasis		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 )
	cyst		3	0	0	0	3	0	0	0	4	0	0	0	1	0	0	0
			( 12 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 18

Organ	Findings	Control No. of Animals on Study Grade				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
pituitary	hyperplasia	<26>				<37>				<29>				<23>			
		1	0	0	0	8	1	0	0	3	0	0	0	1	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 22 )	( 3 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
thyroid	focal follicular cell hyperplasia	<26>				<37>				<29>				<23>			
		1	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 )
adrenal	spindle-cell hyperplasia	<26>				<37>				<29>				<23>			
		16	4	0	0	32	2	0	0	19	7	0	0	17	2	0	0
		( 62 )	( 15 )	( 0 )	( 0 )	( 86 )	( 5 )	( 0 )	( 0 )	( 66 )	( 24 )	( 0 )	( 0 )	( 74 )	( 9 )	( 0 )	( 0 )
	hyperplasia:cortical cell	<26>				<37>				<29>				<23>			
		0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia:medulla	<26>				<37>				<29>				<23>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	focal fatty change:cortex	<26>				<37>				<29>				<23>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

[Reproductive system]

ovary	thrombus	<26>				<37>				<29>				<23>			
		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 19

		Group Name No. of Animals on Study Grade	Control 26				40 ppm 37				80 ppm 29				160 ppm 23			
Organ_____	Findings_____		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Reproductive system]																		
ovary	cyst		<26>				<37>				<29>				<23>			
		4 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	7 ( 24 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 17 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
uterus	dilatation		<26>				<37>				<29>				<23>			
		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 )	
	cystic endometrial hyperplasia		10 ( 38 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	20 ( 54 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	15 ( 52 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	11 ( 48 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
mammary gl	galactoceles		<26>				<37>				<29>				<23>			
		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	
[Nervous system]																		
brain	mineralization		<26>				<37>				<29>				<23>			
		16 ( 62 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	13 ( 35 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	8 ( 28 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 26 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
[Special sense organs/appendage]																		
eye	mineralization		<26>				<37>				<29>				<23>			
		1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 20

Organ_____	Findings_____	Group Name No. of Animals on Study Grade				Control 26				40 ppm 37				80 ppm 29				160 ppm 23			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)				

[Special sense organs/appendage]

Harder gl		<26>				<37>				<29>				<23>			
	Lymphocytic infiltration	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	hyperplasia	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )

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

(HPT150)

BAIS3

APPENDIX M 1

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Time-related Weeks	Items	Group Name	Control	20 ppm	40 ppm	80 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	1	2	0
	NO. OF ANIMALS WITH TUMORS		0	0	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		0	0	0	0
	NO. OF TOTAL TUMORS		0	0	0	0
53 - 78	NO. OF EXAMINED ANIMALS		4	3	4	2
	NO. OF ANIMALS WITH TUMORS		2	2	2	2
	NO. OF ANIMALS WITH SINGLE TUMORS		1	2	2	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	0	0	1
	NO. OF BENIGN TUMORS		1	1	0	0
	NO. OF MALIGNANT TUMORS		2	1	2	3
	NO. OF TOTAL TUMORS		3	2	2	3
79 - 104	NO. OF EXAMINED ANIMALS		15	16	8	8
	NO. OF ANIMALS WITH TUMORS		15	15	7	8
	NO. OF ANIMALS WITH SINGLE TUMORS		5	8	7	7
	NO. OF ANIMALS WITH MULTIPLE TUMORS		10	7	0	1
	NO. OF BENIGN TUMORS		4	5	0	1
	NO. OF MALIGNANT TUMORS		23	18	7	8
	NO. OF TOTAL TUMORS		27	23	7	9
105 - 105	NO. OF EXAMINED ANIMALS		31	30	36	40
	NO. OF ANIMALS WITH TUMORS		31	21	23	22
	NO. OF ANIMALS WITH SINGLE TUMORS		13	8	16	16
	NO. OF ANIMALS WITH MULTIPLE TUMORS		18	13	7	6
	NO. OF BENIGN TUMORS		22	19	16	17
	NO. OF MALIGNANT TUMORS		30	19	14	12
	NO. OF TOTAL TUMORS		52	38	30	29

STUDY NO. : 0285  
ANIMAL : MOUSE C<sub>3</sub>H:BDFl  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 2

Time-related Weeks	Items	Group Name	Control	20 ppm	40 ppm	80 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		48	38	32	32
	NO. OF ANIMALS WITH SINGLE TUMORS		19	18	25	24
	NO. OF ANIMALS WITH MULTIPLE TUMORS		29	20	7	8
	NO. OF BENIGN TUMORS		27	25	16	18
	NO. OF MALIGNANT TUMORS		55	38	23	23
	NO. OF TOTAL TUMORS		82	63	39	41

(HPT070)

BAIS3

APPENDIX M 2

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 3

Time-related Weeks	Items	Group Name	Control	40 ppm	80 ppm	160 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	0	0	1
	NO. OF ANIMALS WITH TUMORS		0	0	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		0	0	0	0
	NO. OF TOTAL TUMORS		0	0	0	0
53 - 78	NO. OF EXAMINED ANIMALS		6	0	6	3
	NO. OF ANIMALS WITH TUMORS		5	0	5	2
	NO. OF ANIMALS WITH SINGLE TUMORS		5	0	5	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	1
	NO. OF BENIGN TUMORS		1	0	0	1
	NO. OF MALIGNANT TUMORS		4	0	5	2
	NO. OF TOTAL TUMORS		5	0	5	3
79 - 104	NO. OF EXAMINED ANIMALS		18	13	15	23
	NO. OF ANIMALS WITH TUMORS		18	12	14	17
	NO. OF ANIMALS WITH SINGLE TUMORS		13	9	10	11
	NO. OF ANIMALS WITH MULTIPLE TUMORS		5	3	4	6
	NO. OF BENIGN TUMORS		6	3	2	9
	NO. OF MALIGNANT TUMORS		18	15	16	14
	NO. OF TOTAL TUMORS		24	18	18	23
105 - 105	NO. OF EXAMINED ANIMALS		26	37	29	23
	NO. OF ANIMALS WITH TUMORS		21	29	16	15
	NO. OF ANIMALS WITH SINGLE TUMORS		10	21	8	10
	NO. OF ANIMALS WITH MULTIPLE TUMORS		11	8	8	5
	NO. OF BENIGN TUMORS		17	15	12	14
	NO. OF MALIGNANT TUMORS		20	24	13	8
	NO. OF TOTAL TUMORS		37	39	25	22



STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 4

Time-related Weeks	Items	Group Name	Control	40 ppm	80 ppm	160 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		44	41	35	34
	NO. OF ANIMALS WITH SINGLE TUMORS		28	30	23	22
	NO. OF ANIMALS WITH MULTIPLE TUMORS		16	11	12	12
	NO. OF BENIGN TUMORS		24	18	14	24
	NO. OF MALIGNANT TUMORS		42	39	34	24
	NO. OF TOTAL TUMORS		66	57	48	48

(HPT070)

BA1S3

APPENDIX N 1

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of animals on Study	Control 50	20 ppm 50	40 ppm 50	80 ppm 50
[Integumentary system/appandage]						
skin/app	squamous cell papilloma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	sebaceous adenocarcinoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
subcutis	xanthoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	sarcoma:NOS		2 ( 4%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
[Respiratory system]						
lung	bronchiolar-alveolar adenoma		<50> 5 ( 10%)	<50> 6 ( 12%)	<50> 2 ( 4%)	<50> 7 ( 14%)
	bronchiolar-alveolar carcinoma		12 ( 24%)	10 ( 20%)	4 ( 8%)	5 ( 10%)
[Hematopoietic system]						
lymph node	malignant lymphoma		<50> 4 ( 8%)	<50> 3 ( 6%)	<50> 5 ( 10%)	<50> 5 ( 10%)
thymus	malignant lymphoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
spleen	hemangioma		<50> 1 ( 2%)	<50> 2 ( 4%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	malignant lymphoma		3 ( 6%)	3 ( 6%)	0 ( 0%)	1 ( 2%)
	hemangiosarcoma		2 ( 4%)	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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of animals on Study	Control 50	20 ppm 50	40 ppm 50	80 ppm 50
[Digestive system]						
tooth	histiocytic sarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)
salivary gl	xanthoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
stomach	mastocytoma:malignant		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)
large intes	leiomyoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
liver	hemangioma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 4 ( 8%)	<50> 0 ( 0%)
	hepatocellular adenoma		17 ( 34%)	12 ( 24%)	8 ( 16%)	6 ( 12%)
	histiocytic sarcoma		3 ( 6%)	4 ( 8%)	0 ( 0%)	3 ( 6%)
	hemangiosarcoma		3 ( 6%)	1 ( 2%)	2 ( 4%)	0 ( 0%)
	hepatocellular carcinoma		21 ( 42%)	14 ( 28%)	9 ( 18%)	4 ( 8%)
gall bladd	hepatoblastoma		3 ( 6%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
	adenoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)
[Urinary system]						
kidney	transitional cell carcinoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of animals on Study	Control 50	20 ppm 50	40 ppm 50	80 ppm 50
[Urinary system]						
urin bladd	transitional cell papilloma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	xanthoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
urethra	xanthoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
[Endocrine system]						
pituitary	adenoma		<50> 0 ( 0%)	<49> 0 ( 0%)	<48> 0 ( 0%)	<50> 2 ( 4%)
[Reproductive system]						
testis	hemangiosarcoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
epididymis	histiocytic sarcoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 2 ( 4%)
semin ves	xanthoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)
[Nervous system]						
periph nerv	histiocytic sarcoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
[Special sense organs/appendage]						
Harder gl	adenoma		<50> 2 ( 4%)	<49> 1 ( 2%)	<50> 1 ( 2%)	<50> 1 ( 2%)

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

APPENDIX N 2

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name No. of animals on Study	Control 50	40 ppm 50	80 ppm 50	160 ppm 50
[Integumentary system/appandage]						
subcutis	leiomyoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	sarcoma:NOS		0 ( 0%)	2 ( 4%)	0 ( 0%)	0 ( 0%)
[Respiratory system]						
lung	bronchiolar-alveolar adenoma		<50> 2 ( 4%)	<50> 3 ( 6%)	<50> 4 ( 8%)	<50> 4 ( 8%)
	bronchiolar-alveolar carcinoma		3 ( 6%)	0 ( 0%)	2 ( 4%)	0 ( 0%)
[Hematopoietic system]						
bone marrow	hemangioma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)
Lymph node	malignant lymphoma		<50> 22 ( 44%)	<50> 14 ( 28%)	<50> 13 ( 26%)	<50> 7 ( 14%)
	mastocytoma:malignant		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
spleen	hemangioma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	malignant lymphoma		4 ( 8%)	6 ( 12%)	6 ( 12%)	6 ( 12%)
	hemangiosarcoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	1 ( 2%)
[Digestive system]						
tooth	hemangiosarcoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of animals on Study	Control 50	40 ppm 50	80 ppm 50	160 ppm 50
[Digestive system]						
Large intes			<50>	<50>	<50>	<50>
	leiomyoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
Liver			<50>	<50>	<50>	<50>
	hemangioma		0 ( 0%)	0 ( 0%)	1 ( 2%)	3 ( 6%)
	hepatocellular adenoma		5 ( 10%)	6 ( 12%)	2 ( 4%)	14 ( 28%)
	histiocytic sarcoma		0 ( 0%)	1 ( 2%)	2 ( 4%)	1 ( 2%)
	hemangiosarcoma		1 ( 2%)	2 ( 4%)	0 ( 0%)	1 ( 2%)
	hepatocellular carcinoma		2 ( 4%)	2 ( 4%)	1 ( 2%)	4 ( 8%)
[Urinary system]						
urin bladd			<50>	<50>	<50>	<50>
	xanthoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
[Endocrine system]						
pituitary			<49>	<50>	<50>	<50>
	adenoma		10 ( 20%)	3 ( 6%)	3 ( 6%)	0 ( 0%)
[Reproductive system]						
ovary			<50>	<50>	<50>	<50>
	cystadenoma		1 ( 2%)	2 ( 4%)	1 ( 2%)	0 ( 0%)
			<50>	<50>	<50>	<50>
	hemangioma		1 ( 2%)	1 ( 2%)	0 ( 0%)	1 ( 2%)

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of animals on Study	Control 50	40 ppm 50	80 ppm 50	160 ppm 50
[Reproductive system]						
uterus	hemangioma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	histiocytic sarcoma		7 ( 14%)	9 ( 18%)	9 ( 18%)	3 ( 6%)
mammary gl	adenoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	adenocarcinoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
[Nervous system]						
spinal cord	histiocytic sarcoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
[Special sense organs/appendage]						
Harder gl	adenoma		<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 2 ( 4%)	<50> 1 ( 2%)
[Musculoskeletal system]						
bone	osteosarcoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)
[Body cavities]						
retroperit	hemangiosarcoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)

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

APPENDIX O 1

NEOPLASTIC LESIONS - INCIDENCE AND STATISTICAL ANALYSIS, MOUSE: MALE

( 2-YEAR STUDY )

STUDY No. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	20 ppm	40 ppm	80 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	6/50( 12.0)	2/50( 4.0)	7/50( 14.0)
Adjusted rates(b)	10.64	13.33	5.56	15.22
Terminal rates(c)	3/31( 9.7)	4/30( 13.3)	2/36( 5.6)	6/40( 15.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.3699			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.6326			
Fisher Exact test(e)		P = 0.5000	P = 0.2180	P = 0.3798
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	12/50( 24.0)	10/50( 20.0)	4/50( 8.0)	5/50( 10.0)
Adjusted rates(b)	22.58	16.13	8.33	10.00
Terminal rates(c)	7/31( 22.6)	4/30( 13.3)	3/36( 8.3)	4/40( 10.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9701			
Prevalence method(d)	P = 0.9512			
Combined analysis(d)	P = 0.9935			
Cochran-Armitage test(e)	P = 0.0318*			
Fisher Exact test(e)		P = 0.4048	P = 0.0269*	P = 0.0542
SITE : lung TUMOR : bronchiolar-alveolar adenoma,bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	17/50( 34.0)	15/50( 30.0)	6/50( 12.0)	11/50( 22.0)
Adjusted rates(b)	32.26	25.81	13.89	22.50
Terminal rates(c)	10/31( 32.3)	7/30( 23.3)	5/36( 13.9)	9/40( 22.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9701			
Prevalence method(d)	P = 0.8922			
Combined analysis(d)	P = 0.9789			
Cochran-Armitage test(e)	P = 0.1011			
Fisher Exact test(e)		P = 0.4152	P = 0.0082**	P = 0.1327

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	20 ppm	40 ppm	80 ppm
SITE : Lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	4/50( 8.0)	3/50( 6.0)	5/50( 10.0)	5/50( 10.0)
Adjusted rates(b)	7.14	10.00	7.89	5.00
Terminal rates(c)	2/31( 6.5)	3/30( 10.0)	2/36( 5.6)	2/40( 5.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0915			
Prevalence method(d)	P = 0.6808			
Combined analysis(d)	P = 0.3273			
Cochran-Armitage test(e)	P = 0.5774			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.5000
SITE : spleen TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	3/50( 6.0)	0/50( 0.0)	1/50( 2.0)
Adjusted rates(b)	6.67	10.00	0.0	2.50
Terminal rates(c)	2/31( 6.5)	3/30( 10.0)	0/36( 0.0)	1/40( 2.5)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9332			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1720			
Fisher Exact test(e)		P = 0.3389	P = 0.1212	P = 0.3087
SITE : spleen TUMOR : hemangioma,hemangiosarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	2/50( 4.0)	0/50( 0.0)	0/50( 0.0)
Adjusted rates(b)	6.52	4.65	0.0	0.0
Terminal rates(c)	2/31( 6.5)	1/30( 3.3)	0/36( 0.0)	0/40( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9880			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0387*			
Fisher Exact test(e)		P = 0.5000	P = 0.1212	P = 0.1212

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	20 ppm	40 ppm	80 ppm
SITE : liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50( 0.0)	0/50( 0.0)	4/50( 8.0)	0/50( 0.0)
Adjusted rates(b)	0.0	0.0	11.11	0.0
Terminal rates(c)	0/31( 0.0)	0/30( 0.0)	4/36( 11.1)	0/40( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4462			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.7327			
Fisher Exact test(e)		P = 0.5000	P = 0.0587	P = 0.5000
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	17/50( 34.0)	12/50( 24.0)	8/50( 16.0)	6/50( 12.0)
Adjusted rates(b)	50.00	30.00	22.22	15.00
Terminal rates(c)	15/31( 48.4)	9/30( 30.0)	8/36( 22.2)	6/40( 15.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.7369			
Prevalence method(d)	P = 0.9995			
Combined analysis(d)	P = 0.9996			
Cochran-Armitage test(e)	P = 0.0068**			
Fisher Exact test(e)		P = 0.1891	P = 0.0317*	P = 0.0082**
SITE : liver TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	4/50( 8.0)	0/50( 0.0)	3/50( 6.0)
Adjusted rates(b)	3.03	3.33	0.0	0.0
Terminal rates(c)	0/31( 0.0)	1/30( 3.3)	0/36( 0.0)	0/40( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.4278			
Prevalence method(d)	P = 0.9001			
Combined analysis(d)	P = 0.6606			
Cochran-Armitage test(e)	P = 0.7421			
Fisher Exact test(e)		P = 0.5000	P = 0.1212	P = 0.3389

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	20 ppm	40 ppm	80 ppm
SITE : liver TUMOR : hemangiosarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	1/50( 2.0)	2/50( 4.0)	0/50( 0.0)
Adjusted rates(b)	3.23	0.0	2.78	0.0
Terminal rates(c)	1/31( 3.2)	0/30( 0.0)	1/36( 2.8)	0/40( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9168			
Prevalence method(d)	P = 0.7777			
Combined analysis(d)	P = 0.9511			
Cochran-Armitage test(e)	P = 0.1232			
Fisher Exact test(e)		P = 0.3087	P = 0.5000	P = 0.1212
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	21/50( 42.0)	14/50( 28.0)	9/50( 18.0)	4/50( 8.0)
Adjusted rates(b)	48.39	27.03	16.67	8.00
Terminal rates(c)	15/31( 48.4)	8/30( 26.7)	6/36( 16.7)	3/40( 7.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9539			
Prevalence method(d)	P = 1.0000			
Combined analysis(d)	P = 1.0000			
Cochran-Armitage test(e)	P = 0.0001**			
Fisher Exact test(e)		P = 0.1041	P = 0.0078**	P = 0.0001**
SITE : liver TUMOR : hepatoblastoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	0/50( 0.0)	1/50( 2.0)	0/50( 0.0)
Adjusted rates(b)	5.71	0.0	2.78	0.0
Terminal rates(c)	1/31( 3.2)	0/30( 0.0)	1/36( 2.8)	0/40( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9154 ?			
Prevalence method(d)	P = 0.9154			
Combined analysis(d)	P = 0.9702			
Cochran-Armitage test(e)	P = 0.0877			
Fisher Exact test(e)		P = 0.1212	P = 0.3087	P = 0.1212

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	20 ppm	40 ppm	80 ppm
SITE : Liver TUMOR : hemangioma,hemangiosarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	1/50( 2.0)	6/50( 12.0)	0/50( 0.0)
Adjusted rates(b)	3.23	0.0	13.89	0.0
Terminal rates(c)	1/31( 3.2)	0/30( 0.0)	5/36( 13.9)	0/40( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9168			
Prevalence method(d)	P = 0.6472			
Combined analysis(d)	P = 0.8806			
Cochran-Armitage test(e)	P = 0.3236			
Fisher Exact test(e)		P = 0.3087	P = 0.2435	P = 0.1212
SITE : Liver TUMOR : hepatocellular adenoma,hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	34/50( 68.0)	24/50( 48.0)	15/50( 30.0)	10/50( 20.0)
Adjusted rates(b)	84.38	50.00	33.33	22.50
Terminal rates(c)	26/31( 83.9)	15/30( 50.0)	12/36( 33.3)	9/40( 22.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9683			
Prevalence method(d)	P = 1.0000			
Combined analysis(d)	P = 1.0000			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.0338*	P = 0.0001**	P < 0.0001**

(HPT360A)

BAIS3

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

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

# NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	20 ppm	40 ppm	80 ppm
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	4/50( 8.0)	5/50( 10.0)	1/50( 2.0)	6/50( 12.0)
Adjusted rates(b)	3.03	3.33	0.0	2.50
Terminal rates(c)	0/31( 0.0)	1/30( 3.3)	0/36( 0.0)	1/40( 2.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3038			
Prevalence method(d)	P = 0.5810			
Combined analysis(d)	P = 0.3608			
Cochran-Armitage test(e)	P = 0.5970			
Fisher Exact test(e)		P = 0.5000	P = 0.1811	P = 0.3703
SITE : ALL SITE TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	7/50( 14.0)	6/50( 12.0)	6/50( 12.0)	6/50( 12.0)
Adjusted rates(b)	13.64	20.00	10.53	7.50
Terminal rates(c)	4/31( 12.9)	6/30( 20.0)	3/36( 8.3)	3/40( 7.5)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0915			
Prevalence method(d)	P = 0.9031			
Combined analysis(d)	P = 0.6489			
Cochran-Armitage test(e)	P = 0.8003			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.5000

(HPT360A)

BAIS3

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



APPENDIX O 2

NEOPLASTIC LESIONS - INCIDENCE AND STATISTICAL ANALYSIS, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	40 ppm	80 ppm	160 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	3/50( 6.0)	4/50( 8.0)	4/50( 8.0)
Adjusted rates(b)	7.69	6.67	13.79	13.04
Terminal rates(c)	2/26( 7.7)	2/37( 5.4)	4/29( 13.8)	3/23( 13.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.1633			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.4098			
Fisher Exact test(e)		P = 0.5000	P = 0.3389	P = 0.3389
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	0/50( 0.0)	2/50( 4.0)	0/50( 0.0)
Adjusted rates(b)	11.54	0.0	5.41	0.0
Terminal rates(c)	3/26( 11.5)	0/37( 0.0)	1/29( 3.4)	0/23( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9474			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1458			
Fisher Exact test(e)		P = 0.1212	P = 0.5000	P = 0.1212
SITE : lung TUMOR : bronchiolar-alveolar adenoma,bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	3/50( 6.0)	6/50( 12.0)	4/50( 8.0)
Adjusted rates(b)	19.23	6.67	17.24	13.04
Terminal rates(c)	5/26( 19.2)	2/37( 5.4)	5/29( 17.2)	3/23( 13.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.4801			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.9334			
Fisher Exact test(e)		P = 0.3575	P = 0.5000	P = 0.5000

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

# NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	40 ppm	80 ppm	160 ppm
SITE : Lymph node TUMOR : malignant Lymphoma				
Tumor rate				
Overall rates(a)	22/50( 44.0)	14/50( 28.0)	13/50( 26.0)	7/50( 14.0)
Adjusted rates(b)	34.62	21.05	17.24	4.88
Terminal rates(c)	9/26( 34.6)	7/37( 18.9)	5/29( 17.2)	1/23( 4.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.9406			
Prevalence method(d)	P = 0.9976			
Combined analysis(d)	P = 0.9986			
Cochran-Armitage test(e)	P = 0.0014**			
Fisher Exact test(e)		P = 0.0721	P = 0.0464*	P = 0.0009**
SITE : spleen TUMOR : malignant Lymphoma				
Tumor rate				
Overall rates(a)	4/50( 8.0)	6/50( 12.0)	6/50( 12.0)	6/50( 12.0)
Adjusted rates(b)	11.54	16.22	13.79	17.39
Terminal rates(c)	3/26( 11.5)	6/37( 16.2)	4/29( 13.8)	4/23( 17.4)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1658			
Prevalence method(d)	P = 0.3226			
Combined analysis(d)	P = 0.1834			
Cochran-Armitage test(e)	P = 0.5928			
Fisher Exact test(e)		P = 0.3703	P = 0.3703	P = 0.3703
SITE : liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50( 0.0)	0/50( 0.0)	1/50( 2.0)	3/50( 6.0)
Adjusted rates(b)	0.0	0.0	3.45	8.70
Terminal rates(c)	0/26( 0.0)	0/37( 0.0)	1/29( 3.4)	2/23( 8.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0879 ?			
Prevalence method(d)	P = 0.0217*			
Combined analysis(d)	P = 0.0051**			
Cochran-Armitage test(e)	P = 0.0168*			
Fisher Exact test(e)		P = 0.5000	P = 0.5000	P = 0.1212

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	40 ppm	80 ppm	160 ppm
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	6/50( 12.0)	2/50( 4.0)	14/50( 28.0)
Adjusted rates(b)	14.81	13.51	5.71	35.71
Terminal rates(c)	3/26( 11.5)	5/37( 13.5)	1/29( 3.4)	8/23( 34.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5777			
Prevalence method(d)	P = 0.0036**			
Combined analysis(d)	P = 0.0056**			
Cochran-Armitage test(e)	P = 0.0087**			
Fisher Exact test(e)		P = 0.5000	P = 0.2180	P = 0.0198*
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	2/50( 4.0)	1/50( 2.0)	4/50( 8.0)
Adjusted rates(b)	7.69	5.41	2.33	4.35
Terminal rates(c)	2/26( 7.7)	2/37( 5.4)	0/29( 0.0)	1/23( 4.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0031**?			
Prevalence method(d)	P = 0.7087			
Combined analysis(d)	P = 0.1271			
Cochran-Armitage test(e)	P = 0.3270			
Fisher Exact test(e)		P = 0.3087	P = 0.5000	P = 0.3389
SITE : liver TUMOR : hemangioma,hemangiosarcoma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	2/50( 4.0)	1/50( 2.0)	4/50( 8.0)
Adjusted rates(b)	0.0	2.70	3.45	11.54
Terminal rates(c)	0/26( 0.0)	1/37( 2.7)	1/29( 3.4)	2/23( 8.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5039			
Prevalence method(d)	P = 0.0206*			
Combined analysis(d)	P = 0.0578			
Cochran-Armitage test(e)	P = 0.1432			
Fisher Exact test(e)		P = 0.5000	P = 0.2475	P = 0.1811

STUDY No. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	40 ppm	80 ppm	160 ppm
SITE : liver TUMOR : hepatocellular adenoma, hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	7/50( 14.0)	8/50( 16.0)	3/50( 6.0)	17/50( 34.0)
Adjusted rates(b)	22.22	18.92	6.98	38.71
Terminal rates(c)	5/26( 19.2)	7/37( 18.9)	1/29( 3.4)	8/23( 34.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0192*			
Prevalence method(d)	P = 0.0199*			
Combined analysis(d)	P = 0.0036**			
Cochran-Armitage test(e)	P = 0.0090**			
Fisher Exact test(e)		P = 0.5000	P = 0.1589	P = 0.0169*
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	10/49( 20.4)	3/50( 6.0)	3/50( 6.0)	0/50( 0.0)
Adjusted rates(b)	34.62	8.11	10.34	0.0
Terminal rates(c)	9/26( 34.6)	3/37( 8.1)	3/29( 10.3)	0/23( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9999			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0007**			
Fisher Exact test(e)		P = 0.0326*	P = 0.0326*	P = 0.0005**

(HPT360A)

BA1S3

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

# NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	40 ppm	80 ppm	160 ppm
SITE : uterus				
TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	7/50( 14.0)	9/50( 18.0)	9/50( 18.0)	3/50( 6.0)
Adjusted rates(b)	3.85	15.38	7.50	4.35
Terminal rates(c)	1/26( 3.8)	5/37( 13.5)	2/29( 6.9)	1/23( 4.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8743			
Prevalence method(d)	P = 0.7229			
Combined analysis(d)	P = 0.9018			
Cochran-Armitage test(e)	P = 0.1683			
Fisher Exact test(e)		P = 0.3929	P = 0.3929	P = 0.1589

(HPT360A)

BAIS3

(a): Number of tumor-bearing animals/number of animals examined at the site.

(b): Kaplan-Meire estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.

(c): Observed tumor incidence at terminal kill.

(d): Beneath the control incidence are the P-values associated with the trend test.

Standard method : Death analysis

Prevalence method : Incidental tumor test

Combined analysis : Death analysis + Incidental tumor test

(e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.

? : The conditional probabilities of the largest and smallest possible out comes can not estimated or this P-value is beyond the estimated P-value.

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

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

STUDY No. : 0285  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	40 ppm	80 ppm	160 ppm
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	8/50( 16.0)	10/50( 20.0)	11/50( 22.0)	4/50( 8.0)
Adjusted rates(b)	3.85	17.95	7.69	8.70
Terminal rates(c)	1/26( 3.8)	6/37( 16.2)	2/29( 6.9)	2/23( 8.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8942			
Prevalence method(d)	P = 0.5849			
Combined analysis(d)	P = 0.8719			
Cochran-Armitage test(e)	P = 0.2092			
Fisher Exact test(e)		P = 0.3976	P = 0.3055	P = 0.1783
SITE : ALL SITE TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	26/50( 52.0)	20/50( 40.0)	19/50( 38.0)	13/50( 26.0)
Adjusted rates(b)	46.15	36.84	31.03	21.74
Terminal rates(c)	12/26( 46.2)	13/37( 35.1)	9/29( 31.0)	5/23( 21.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8535			
Prevalence method(d)	P = 0.9808			
Combined analysis(d)	P = 0.9849			
Cochran-Armitage test(e)	P = 0.0094**			
Fisher Exact test(e)		P = 0.1579	P = 0.1138	P = 0.0067**

(HPT360A)

BAIS3

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

APPENDIX P 1

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 50	20 ppm 50	40 ppm 50	80 ppm 50
[Integumentary system/appandage]						
subcutis	metastasis:lung tumor		<50> 1	<50> 0	<50> 0	<50> 1
	metastasis:epididymis tumor		0	0	0	1
[Respiratory system]						
nasal cavit	metastasis:peripheral nerve tumor		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:epididymis tumor		0	0	0	1
trachea	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
lung	leukemic cell infiltration		<50> 2	<50> 2	<50> 2	<50> 4
	metastasis:liver tumor		7	6	4	2
	metastasis:epididymis tumor		0	0	1	0
[Hematopoietic system]						
bone marrow	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:liver tumor		0	1	0	1
	metastasis:stomach tumor		0	0	0	1
lymph node	metastasis:liver tumor		<50> 1	<50> 0	<50> 0	<50> 1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 50	20 ppm 50	40 ppm 50	80 ppm 50
[Hematopoietic system]						
Lymph node			<50>	<50>	<50>	<50>
	metastasis:lung tumor		0	0	0	1
	metastasis:stomach tumor		0	0	0	1
spleen			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	3	1	4
	metastasis:liver tumor		1	0	0	1
[Circulatory system]						
heart			<50>	<50>	<50>	<50>
	metastasis:lung tumor		2	0	0	1
[Digestive system]						
tooth			<50>	<50>	<50>	<50>
	metastasis:epididymis tumor		0	0	0	2
salivary gl			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	2
stomach			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	0	0	1
	metastasis:liver tumor		1	0	0	0
large intes			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	0	2

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Group Name No. of Animals on Study		Control 50	20 ppm 50	40 ppm 50	80 ppm 50
Organ	Findings				
[Digestive system]					
liver	metastasis:stomach tumor	<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:epididymis tumor	1	0	1	0
pancreas	leukemic cell infiltration	<50> 0	<50> 0	<49> 2	<50> 1
	metastasis:subcutis tumor	1	0	0	0
	metastasis:lung tumor	1	0	0	1
[Urinary system]					
kidney	leukemic cell infiltration	<50> 2	<50> 0	<50> 0	<50> 1
	metastasis:liver tumor	0	0	0	1
	metastasis:lung tumor	1	0	0	1
	metastasis:epididymis tumor	0	0	1	0
urin bladd	leukemic cell infiltration	<50> 0	<50> 0	<50> 0	<50> 1
	metastasis:liver tumor	1	0	0	1
	metastasis:epididymis tumor	0	0	1	1
[Endocrine system]					
adrenal	leukemic cell infiltration	<50> 1	<50> 0	<50> 0	<50> 0

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study	Control 50	20 ppm 50	40 ppm 50	80 ppm 50
[Reproductive system]						
epididymis	leukemic cell infiltration		<50> 0	<50> 0	<50> 2	<50> 0
semin ves	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0
[Special sense organs/appendage]						
eye	metastasis:peripheral nerve tumor		<50> 0	<50> 1	<50> 0	<50> 0
Harder gl	metastasis:lung tumor		<50> 0	<50> 0	<50> 0	<50> 1
[Musculoskeletal system]						
muscle	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
[Body cavities]						
pleura	metastasis:lung tumor		<50> 0	<50> 0	<50> 0	<50> 1
mediastinum	metastasis:lung tumor		<50> 1	<50> 0	<50> 0	<50> 1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

APPENDIX P 2

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study	Control 50	40 ppm 50	80 ppm 50	160 ppm 50
[Integumentary system/appandage]						
skin/app			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	0	0	1
subcutis			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	1	0
	metastasis:uterus tumor		1	0	0	0
[Respiratory system]						
nasal cavit			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	2	1
trachea			<50>	<50>	<50>	<50>
	leukemic cell infiltration		2	0	1	1
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		16	10	12	9
	metastasis:liver tumor		1	1	2	1
	metastasis:uterus tumor		3	2	5	0
	metastasis:bone tumor		0	1	0	0
[Hematopoietic system]						
bone marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	0	2	1
	metastasis:liver tumor		0	0	0	1
	metastasis:uterus tumor		0	1	1	0

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Group Name No. of Animals on Study		Control 50	40 ppm 50	80 ppm 50	160 ppm 50
Organ	Findings				
[Hematopoietic system]					
Lymph node		<50>	<50>	<50>	<50>
	metastasis:liver tumor	0	0	1	1
spleen		<50>	<50>	<50>	<50>
	leukemic cell infiltration	13	7	6	2
	metastasis:liver tumor	0	1	1	1
	metastasis:uterus tumor	1	0	0	0
[Circulatory system]					
heart		<50>	<50>	<50>	<50>
	leukemic cell infiltration	5	2	7	1
	metastasis:liver tumor	0	0	1	0
	metastasis:subcutis tumor	0	1	0	0
[Digestive system]					
tooth		<50>	<50>	<50>	<50>
	metastasis:uterus tumor	3	0	3	0
tongue		<50>	<50>	<50>	<50>
	leukemic cell infiltration	3	0	1	1
salivary gl		<50>	<50>	<50>	<50>
	leukemic cell infiltration	5	4	4	4
esophagus		<50>	<50>	<50>	<50>
	leukemic cell infiltration	0	0	1	0
stomach		<50>	<50>	<50>	<50>
	leukemic cell infiltration	13	7	9	4
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Group Name No. of Animals on Study		Control 50	40 ppm 50	80 ppm 50	160 ppm 50
Organ	Findings				
[Digestive system]					
stomach		<50>	<50>	<50>	<50>
	metastasis:uterus tumor	1	1	1	1
small intes		<50>	<50>	<50>	<50>
	metastasis:uterus tumor	0	0	1	1
large intes		<50>	<50>	<50>	<50>
	leukemic cell infiltration	0	1	0	0
	metastasis:uterus tumor	0	0	0	1
liver		<50>	<50>	<50>	<50>
	leukemic cell infiltration	13	6	8	6
	metastasis:uterus tumor	5	3	7	2
	metastasis:bone tumor	0	0	0	1
pancreas		<50>	<50>	<50>	<50>
	leukemic cell infiltration	9	3	1	3
	metastasis:uterus tumor	0	1	1	0
[Urinary system]					
kidney		<50>	<50>	<50>	<50>
	leukemic cell infiltration	9	4	7	4
	metastasis:uterus tumor	2	0	2	1
urin bladd		<50>	<50>	<50>	<50>
	leukemic cell infiltration	7	2	3	2
[Endocrine system]					
pituitary		<50>	<50>	<50>	<50>
	leukemic cell infiltration	1	0	0	0

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study	Control 50	40 ppm 50	80 ppm 50	160 ppm 50
[Endocrine system]						
thyroid	leukemic cell infiltration		<50> 1	<50> 0	<50> 1	<50> 0
adrenal	leukemic cell infiltration		<50> 6	<50> 2	<50> 4	<50> 2
[Reproductive system]						
ovary	leukemic cell infiltration		<50> 9	<50> 4	<50> 6	<50> 4
	metastasis:uterus tumor		5	3	6	1
uterus	leukemic cell infiltration		<50> 3	<50> 1	<50> 5	<50> 1
vagina	leukemic cell infiltration		<50> 1	<50> 0	<50> 2	<50> 0
	metastasis:uterus tumor		0	0	1	1
mammary gl	leukemic cell infiltration		<50> 1	<50> 1	<50> 0	<50> 0
[Nervous system]						
brain	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 1
	metastasis:spinal code tumor		1	0	0	0
spinal cord	leukemic cell infiltration		<50> 1	<50> 0	<50> 0	<50> 0

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study	Control 50	40 ppm 50	80 ppm 50	160 ppm 50
[Special sense organs/appendage]						
eye	leukemic cell infiltration		<50> 2	<50> 1	<50> 2	<50> 0
Harder gl	leukemic cell infiltration		<50> 4	<50> 0	<50> 3	<50> 0
[Musculoskeletal system]						
muscle	leukemic cell infiltration		<50> 6	<50> 1	<50> 3	<50> 2
[Body cavities]						
pleura	metastasis:subcutis tumor		<50> 0	<50> 1	<50> 0	<50> 0
mediastinum	leukemic cell infiltration		<50> 3	<50> 5	<50> 3	<50> 2
peritoneum	leukemic cell infiltration		<50> 3	<50> 1	<50> 3	<50> 2
	metastasis:uterus tumor		0	0	1	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

APPENDIX P 3

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

		Group Name	Control	20 ppm	40 ppm	80 ppm
		No. of Animals on Study	19	20	14	10
Organ	Findings					
[Integumentary system/appandage]						
subcutis	metastasis:lung tumor		<19> 1	<20> 0	<14> 0	<10> 1
[Respiratory system]						
nasal cavit	metastasis:peripheral nerve tumor		<19> 0	<20> 1	<14> 0	<10> 0
trachea	leukemic cell infiltration		<19> 0	<20> 0	<14> 0	<10> 1
lung	leukemic cell infiltration		<19> 0	<20> 0	<14> 1	<10> 2
	metastasis:liver tumor		6	5	1	2
	metastasis:epididymis tumor		0	0	1	0
[Hematopoietic system]						
bone marrow	metastasis:liver tumor		<19> 0	<20> 1	<14> 0	<10> 1
lymph node	metastasis:liver tumor		<19> 1	<20> 0	<14> 0	<10> 1
	metastasis:lung tumor		0	0	0	1
spleen	leukemic cell infiltration		<19> 1	<20> 0	<14> 1	<10> 3
	metastasis:liver tumor		1	0	0	1
[Circulatory system]						
heart	metastasis:lung tumor		<19> 2	<20> 0	<14> 0	<10> 1

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 2

Group Name No. of Animals on Study		Control 19	20 ppm 20	40 ppm 14	80 ppm 10
Organ	Findings				
[Digestive system]					
tooth	metastasis:epididymis tumor	<19> 0	<20> 0	<14> 0	<10> 1
salivary gl	leukemic cell infiltration	<19> 0	<20> 0	<14> 0	<10> 1
stomach	leukemic cell infiltration	<19> 2	<20> 0	<14> 0	<10> 1
	metastasis:liver tumor	1	0	0	0
liver	leukemic cell infiltration	<19> 0	<20> 0	<14> 0	<10> 1
	metastasis:epididymis tumor	1	0	1	0
pancreas	leukemic cell infiltration	<19> 0	<20> 0	<13> 2	<10> 1
	metastasis:subcutis tumor	1	0	0	0
	metastasis:lung tumor	1	0	0	1
[Urinary system]					
kidney	leukemic cell infiltration	<19> 1	<20> 0	<14> 0	<10> 1
	metastasis:liver tumor	0	0	0	1
	metastasis:lung tumor	1	0	0	1
	metastasis:epididymis tumor	0	0	1	0
urin bladd	metastasis:liver tumor	<19> 1	<20> 0	<14> 0	<10> 1

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Group Name No. of Animals on Study		Control 19	20 ppm 20	40 ppm 14	80 ppm 10
Organ	Findings				
[Urinary system]					
urin bladd	metastasis:epididymis tumor	<19> 0	<20> 0	<14> 1	<10> 1
[Endocrine system]					
adrenal	leukemic cell infiltration	<19> 1	<20> 0	<14> 0	<10> 0
[Reproductive system]					
semin ves	leukemic cell infiltration	<19> 1	<20> 0	<14> 0	<10> 0
[Special sense organs/appendage]					
eye	metastasis:peripheral nerve tumor	<19> 0	<20> 1	<14> 0	<10> 0
Harder gl	metastasis:lung tumor	<19> 0	<20> 0	<14> 0	<10> 1
[Musculoskeletal system]					
muscle	leukemic cell infiltration	<19> 0	<20> 0	<14> 0	<10> 1
[Body cavities]					
pleura	metastasis:lung tumor	<19> 0	<20> 0	<14> 0	<10> 1

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

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

		Group Name	Control	20 ppm	40 ppm	80 ppm
		No. of Animals on Study	19	20	14	10
Organ_____	Findings_____					

mediastinum	<18>	<20>	<14>	<10>
metastasis:lung tumor	1	0	0	1

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

BAIS3

APPENDIX P 4

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



STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Group Name No. of Animals on Study		Control 24	40 ppm 13	80 ppm 21	160 ppm 27
Organ	Findings				
[Integumentary system/appandage]					
skin/app		<24>	<13>	<21>	<27>
	leukemic cell infiltration	1	0	0	1
subcutis		<24>	<13>	<21>	<27>
	leukemic cell infiltration	0	0	1	0
	metastasis:uterus tumor	1	0	0	0
[Respiratory system]					
nasal cavit		<24>	<13>	<21>	<27>
	leukemic cell infiltration	0	0	2	1
trachea		<24>	<13>	<21>	<27>
	leukemic cell infiltration	2	0	1	1
lung		<24>	<13>	<21>	<27>
	leukemic cell infiltration	13	5	9	7
	metastasis:liver tumor	1	0	2	0
	metastasis:uterus tumor	3	2	5	0
	metastasis:bone tumor	0	1	0	0
[Hematopoietic system]					
bone marrow		<24>	<13>	<21>	<27>
	leukemic cell infiltration	1	0	2	1
	metastasis:uterus tumor	0	1	1	0
lymph node		<24>	<13>	<21>	<27>
	metastasis:liver tumor	0	0	1	0

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 6

Group Name No. of Animals on Study		Control 24	40 ppm 13	80 ppm 21	160 ppm 27
Organ	Findings				
[Hematopoietic system]					
spleen		<24>	<13>	<21>	<27>
	leukemic cell infiltration	9	3	5	1
	metastasis:liver tumor	0	0	1	0
	metastasis:uterus tumor	1	0	0	0
[Circulatory system]					
heart		<24>	<13>	<21>	<27>
	leukemic cell infiltration	5	2	6	1
	metastasis:liver tumor	0	0	1	0
[Digestive system]					
tooth		<24>	<13>	<21>	<27>
	metastasis:uterus tumor	3	0	3	0
tongue		<24>	<13>	<21>	<27>
	leukemic cell infiltration	3	0	1	1
salivary gl		<24>	<13>	<21>	<27>
	leukemic cell infiltration	5	2	4	3
esophagus		<24>	<13>	<21>	<27>
	leukemic cell infiltration	0	0	1	0
stomach		<24>	<13>	<21>	<27>
	leukemic cell infiltration	10	2	5	4
	metastasis:uterus tumor	1	1	0	1
small intes		<24>	<13>	<21>	<27>
	metastasis:uterus tumor	0	0	0	1
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

STUDY NO. : 0285  
 ANIMAL : MOUSE Cj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study	Control 24	40 ppm 13	80 ppm 21	160 ppm 27
[Digestive system]						
Large intes			<24>	<13>	<21>	<27>
	metastasis:uterus tumor		0	0	0	1
Liver			<24>	<13>	<21>	<27>
	leukemic cell infiltration		11	1	7	4
	metastasis:uterus tumor		5	3	5	1
	metastasis:bone tumor		0	0	0	1
pancreas			<24>	<13>	<21>	<27>
	leukemic cell infiltration		7	2	1	3
	metastasis:uterus tumor		0	1	1	0
[Urinary system]						
kidney			<24>	<13>	<21>	<27>
	leukemic cell infiltration		6	1	5	2
	metastasis:uterus tumor		2	0	2	1
urin bladd			<24>	<13>	<21>	<27>
	leukemic cell infiltration		5	0	3	2
[Endocrine system]						
thyroid			<24>	<13>	<21>	<27>
	leukemic cell infiltration		1	0	1	0
adrenal			<24>	<13>	<21>	<27>
	leukemic cell infiltration		5	2	4	2
[Reproductive system]						
ovary			<24>	<13>	<21>	<27>
	leukemic cell infiltration		8	3	5	4

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 8

		Group Name No. of Animals on Study	Control 24	40 ppm 13	80 ppm 21	160 ppm 27
Organ	Findings					
[Reproductive system]						
ovary			<24>	<13>	<21>	<27>
	metastasis:uterus tumor		5	3	4	1
uterus			<24>	<13>	<21>	<27>
	leukemic cell infiltration		2	0	5	1
vagina			<24>	<13>	<21>	<27>
	leukemic cell infiltration		1	0	2	0
	metastasis:uterus tumor		0	0	1	1
mammary gl			<24>	<13>	<21>	<27>
	leukemic cell infiltration		1	0	0	0
[Nervous system]						
brain			<24>	<13>	<21>	<27>
	leukemic cell infiltration		0	0	1	1
	metastasis:spinal code tumor		1	0	0	0
[Special sense organs/appendage]						
eye			<24>	<13>	<21>	<27>
	leukemic cell infiltration		2	1	2	0
Harder gl			<24>	<13>	<21>	<27>
	leukemic cell infiltration		3	0	3	0
[Musculoskeletal system]						
muscle			<24>	<13>	<21>	<27>
	leukemic cell infiltration		6	1	3	2

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

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 9

		Group Name	Control	40 ppm	80 ppm	160 ppm
		No. of Animals on Study	24	13	21	27
Organ_____	Findings_____					
[Body cavities]						
mediastinum		<24>	<13>	<21>	<27>	
	leukemic cell infiltration	3	2	3	2	
peritoneum		<24>	<13>	<21>	<27>	
	leukemic cell infiltration	2	1	2	2	
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					
(JPT150)						

APPENDIX P 5

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 31	20 ppm 30	40 ppm 36	80 ppm 40
[Integumentary system/appandage]						
subcutis	metastasis:epididymis tumor		<31> 0	<30> 0	<36> 0	<40> 1
[Respiratory system]						
nasal cavit	metastasis:epididymis tumor		<31> 0	<30> 0	<36> 0	<40> 1
lung	leukemic cell infiltration		<31> 2	<30> 2	<36> 1	<40> 2
	metastasis:liver tumor		1	1	3	0
[Hematopoietic system]						
bone marrow	leukemic cell infiltration		<31> 0	<30> 0	<36> 0	<40> 1
	metastasis:stomach tumor		0	0	0	1
lymph node	metastasis:stomach tumor		<31> 0	<30> 0	<36> 0	<40> 1
	leukemic cell infiltration		<31> 1	<30> 3	<36> 0	<40> 1
[Digestive system]						
tooth	metastasis:epididymis tumor		<31> 0	<30> 0	<36> 0	<40> 1
salivary gl	leukemic cell infiltration		<31> 0	<30> 0	<36> 0	<40> 1

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Group Name No. of Animals on Study		Control 31	20 ppm 30	40 ppm 36	80 ppm 40
Organ_____	Findings_____				
[Digestive system]					
large intes		<31>	<30>	<36>	<40>
	leukemic cell infiltration	0	0	0	1
liver		<31>	<30>	<36>	<40>
	leukemic cell infiltration	1	1	0	1
	metastasis:stomach tumor	0	0	0	1
[Urinary system]					
kidney		<31>	<30>	<36>	<40>
	leukemic cell infiltration	1	0	0	0
urin bladd		<31>	<30>	<36>	<40>
	leukemic cell infiltration	0	0	0	1
[Reproductive system]					
epididymis		<31>	<30>	<36>	<40>
	leukemic cell infiltration	0	0	2	0
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				
(JPT150)					

BAIS3



APPENDIX P 6

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

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 3

Group Name No. of Animals on Study		Control 26	40 ppm 37	80 ppm 29	160 ppm 23
Organ	Findings				
[Respiratory system]					
Lung	leukemic cell infiltration	<26> 3	<37> 5	<29> 3	<23> 2
	metastasis:liver tumor	0	1	0	1
[Hematopoietic system]					
bone marrow	leukemic cell infiltration	<26> 2	<37> 0	<29> 0	<23> 0
	metastasis:liver tumor	0	0	0	1
Lymph node	metastasis:liver tumor	<26> 0	<37> 0	<29> 0	<23> 1
spleen	leukemic cell infiltration	<26> 4	<37> 4	<29> 1	<23> 1
	metastasis:liver tumor	0	1	0	1
[Circulatory system]					
heart	leukemic cell infiltration	<26> 0	<37> 0	<29> 1	<23> 0
	metastasis:subcutis tumor	0	1	0	0
[Digestive system]					
salivary gl	leukemic cell infiltration	<26> 0	<37> 2	<29> 0	<23> 1
stomach	leukemic cell infiltration	<26> 3	<37> 5	<29> 4	<23> 0
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

STUDY NO. : 0285  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 4

Group Name No. of Animals on Study		Control 26	40 ppm 37	80 ppm 29	160 ppm 23
Organ	Findings				
[Digestive system]					
stomach		<26>	<37>	<29>	<23>
	metastasis:uterus tumor	0	0	1	0
small intes		<26>	<37>	<29>	<23>
	metastasis:uterus tumor	0	0	1	0
large intes		<26>	<37>	<29>	<23>
	leukemic cell infiltration	0	1	0	0
liver		<26>	<37>	<29>	<23>
	leukemic cell infiltration	2	5	1	2
	metastasis:uterus tumor	0	0	2	1
pancreas		<26>	<37>	<29>	<23>
	leukemic cell infiltration	2	1	0	0
[Urinary system]					
kidney		<26>	<37>	<29>	<23>
	leukemic cell infiltration	3	3	2	2
urin bladd		<26>	<37>	<29>	<23>
	leukemic cell infiltration	2	2	0	0
[Endocrine system]					
pituitary		<26>	<37>	<29>	<23>
	leukemic cell infiltration	1	0	0	0
adrenal		<26>	<37>	<29>	<23>
	leukemic cell infiltration	1	0	0	0
[Reproductive system]					
ovary		<26>	<37>	<29>	<23>
	leukemic cell infiltration	1	1	1	0
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

STUDY NO. : 0285  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study	Control 26	40 ppm 37	80 ppm 29	160 ppm 23
[Reproductive system]						
ovary	metastasis:uterus tumor		<26> 0	<37> 0	<29> 2	<23> 0
uterus	leukemic cell infiltration		<26> 1	<37> 1	<29> 0	<23> 0
mammary gl	leukemic cell infiltration		<26> 0	<37> 1	<29> 0	<23> 0
[Nervous system]						
spinal cord	leukemic cell infiltration		<26> 1	<37> 0	<29> 0	<23> 0
[Special sense organs/appendage]						
Harder gl	leukemic cell infiltration		<26> 1	<37> 0	<29> 0	<23> 0
[Body cavities]						
pleura	metastasis:subcutis tumor		<26> 0	<37> 1	<29> 0	<23> 0
mediastinum	leukemic cell infiltration		<26> 0	<37> 3	<29> 0	<23> 0
peritoneum	leukemic cell infiltration		<26> 1	<37> 0	<29> 1	<23> 0
	metastasis:uterus tumor		0	0	1	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

## APPENDIX Q 1

### IDENTITY OF HYDRAZINE MONOHYDRATE IN THE 2-YEAR DRINKING WATER STUDY

## IDENTITY OF HYDRAZINE MONOHYDRATE IN THE 2-YEAR DRINKING WATER STUDY

Test Substance : Hydrazine Monohydrate (Wako Pure Chemical Industries, LTD.)

A. Lot No. : KCJ4216

## 1. Spectral data

Mass Spectrometry

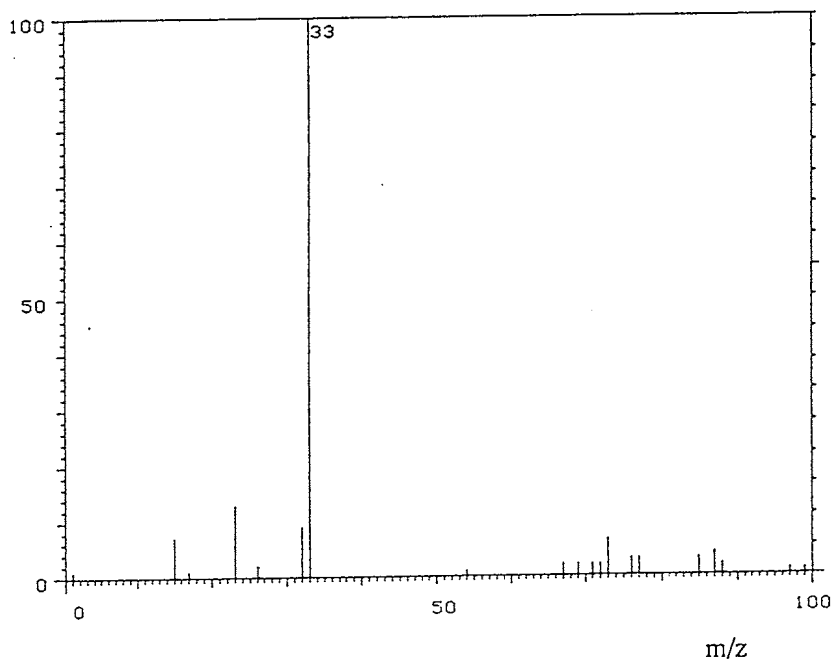
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : SIMS (Secondary Ionization Mass Spectrometry)

Matrix : Glycerol

Primary Ion : Xenon<sup>+</sup>

Accelerating Voltage : 8kV



Mass Spectrum of Test Substance

Determined Value  
Fragment Peak (m/z)

33

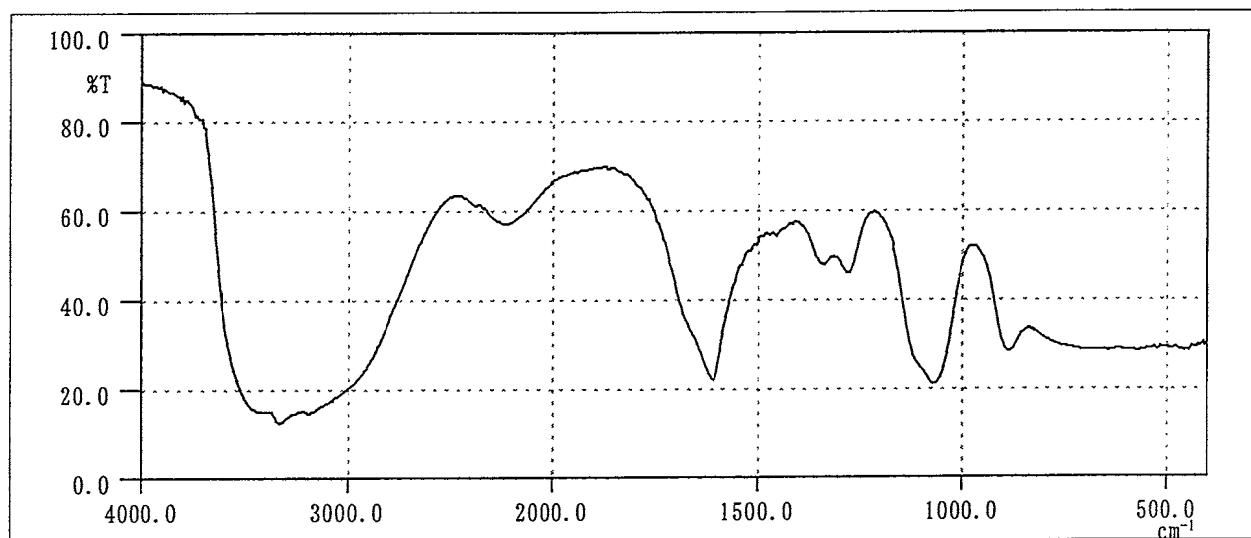
Calculated Value  
Fragment Peak (m/z)33 (NH<sub>2</sub>·NH<sub>2</sub> + H<sup>+</sup>)

Results: The mass spectrum was consistent with calculated spectrum.

Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2.0  $\text{cm}^{-1}$ 

Infrared Spectrum of Test Substance

<u>Determined Values</u>	<u>Literature Values*</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
850~970	850~970
970~1220	970~1220
1220~1400	1220~1400
1500~1800	1500~1800
2000~2500	2000~2500
2500~3750	2500~3750

Results: The infrared spectrum was consistent with literature spectrum.

(\*Performed by the Wako Pure Chemical Industries, LTD.)

2. Conclusions: The test substance was identified as hydrazine monohydrate, by the mass spectrum and the infrared spectrum.

B. Lot No. : DLL4042

1. Spectral data

Mass Spectrometry

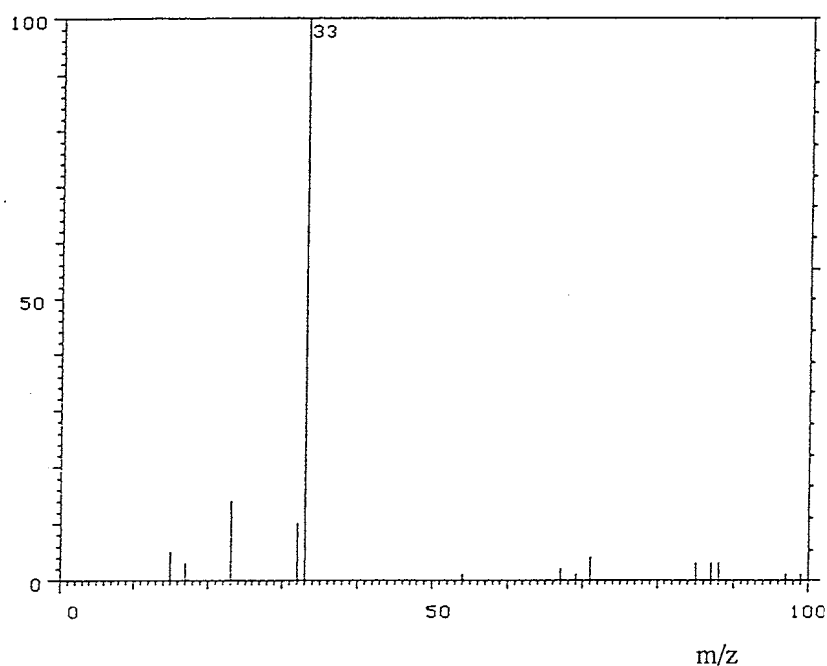
Instrument : Hitachi M-80B Mass Spectrometer

Ionization : SIMS (Secondary Ionization Mass Spectrometry)

Matrix : Glycerol

Primary Ion : Xenon<sup>+</sup>

Accelerating Voltage : 8kV



Mass Spectrum of Test Substance

Determined Value  
Fragment Peak (m/z)

33

Calculated Value  
Fragment Peak (m/z)

33 (NH<sub>2</sub>·NH<sub>2</sub> + H<sup>+</sup>)

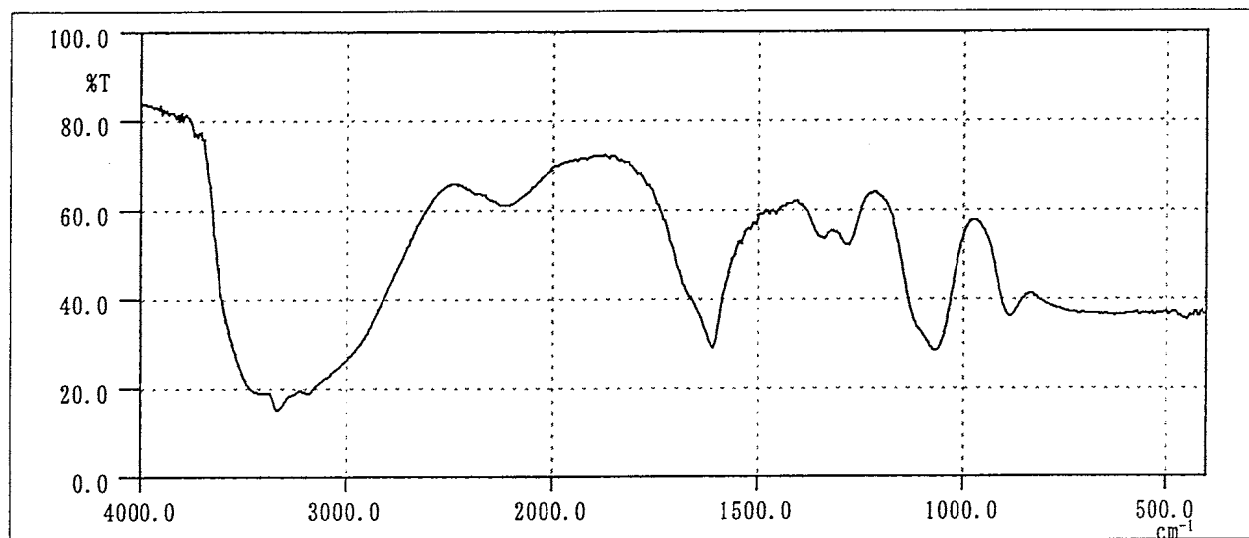
Results: The mass spectrum was consistent with calculated spectrum.



Infrared Spectrometry

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2.0  $\text{cm}^{-1}$ 

Infrared Spectrum of Test Substance

<u>Determined Values</u>	<u>Literature Values</u> *
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
850~970	850~970
970~1220	970~1220
1220~1400	1220~1400
1500~1800	1500~1800
2000~2500	2000~2500
2500~3750	2500~3750

Results: The infrared spectrum was consistent with literature spectrum.

(\*Performed by the Wako Pure Chemical Industries, LTD.)

2. Conclusions: The test substance was identified as hydrazine monohydrate, by the mass spectrum and the infrared spectrum.

APPENDIX Q 2  
STABILITY OF HYDRAZINE MONOHYDRATE IN THE 2-YEAR  
DRINKING WATER STUDY

## STABILITY OF HYDRAZINE MONOHYDRATE IN THE 2-YEAR DRINKING WATER STUDY

Test Substance : Hydrazine Monohydrate (Wako Pure Chemical Industries, LTD.)

A. Lot No. : KCJ4216

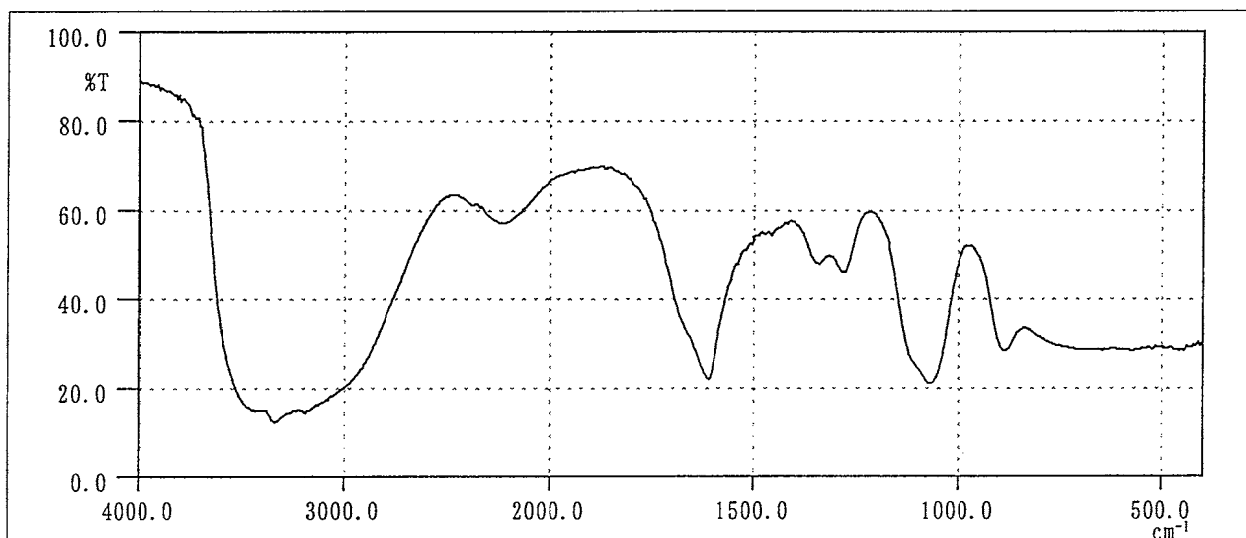
1. Sample : This lot was used from 1995.4.17 to 1997.1.13. Test substance was stored in a dark place at room temperature.

2. Infrared Spectrometry

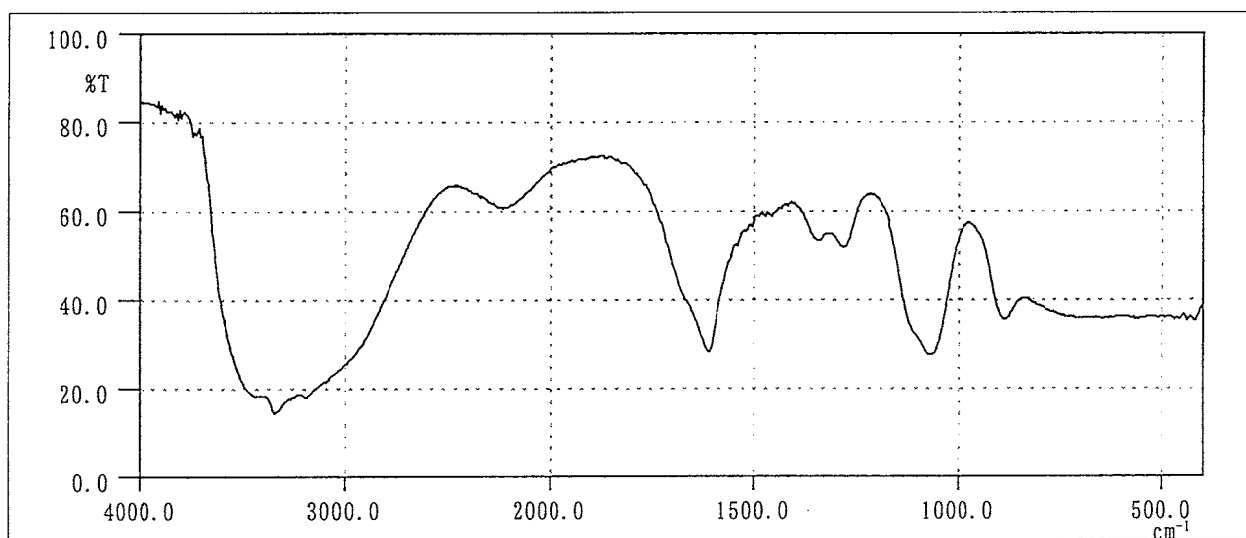
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2.0  $\text{cm}^{-1}$



Infrared Spectrum of Test Substance (date analyzed : 1995.02.14)



Infrared Spectrum of Test Substance (date analyzed : 1997.01.13)

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

## 3. High Performance Liquid Chromatography

Instrument : Hewlett Packard 1090 High Performance Liquid Chromatograph

Column : TSK GEL ODS-80TM (4.6 m $\phi$   $\times$  15 cm)

Column Temperature : 50 °C

Flow Rate : 0.8 mL/min

Mobile Phase : Methanol : Distilled Water = 9 : 1

Detector : UV (313 nm)

Injection Volume : 10  $\mu$ L

Pre-Treatment : Hydrazine monohydrate was allowed to react with benzaldazine, and analyzed. Benzaldazine was reacted according to the method of Andersson K., et al.\* based on the reaction of the appropriate hydrazine monohydrate and benzaldehyde with hydrochloric acid.

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1995.02.14	1	3.557	100
1997.01.13	1	3.555	100

Results: High performance liquid chromatography indicated one major peak (peak No.1) analyzed at 1995.2.14 and one major peak (peak No.1) analyzed at 1997.1.13. No new trace impurity peak in the test substance analyzed at 1997.1.13 was detected.

(\* Andersson K., Hallgren C., Levin J. -O., and Nilsson C. -A. (1984) Liquid chromatographic determination of hydrazine at sub-parts-per-million levels in workroom air as benzaldazine with the use of chemisorption on benzaldehyde-coated amberlite XAD-2. American Chemical Society., 56, 1730-1731. )

4. Conclusions: The test substance was stable for about 23 months in a dark place at room temperature.

B. Lot No. : DLL4042

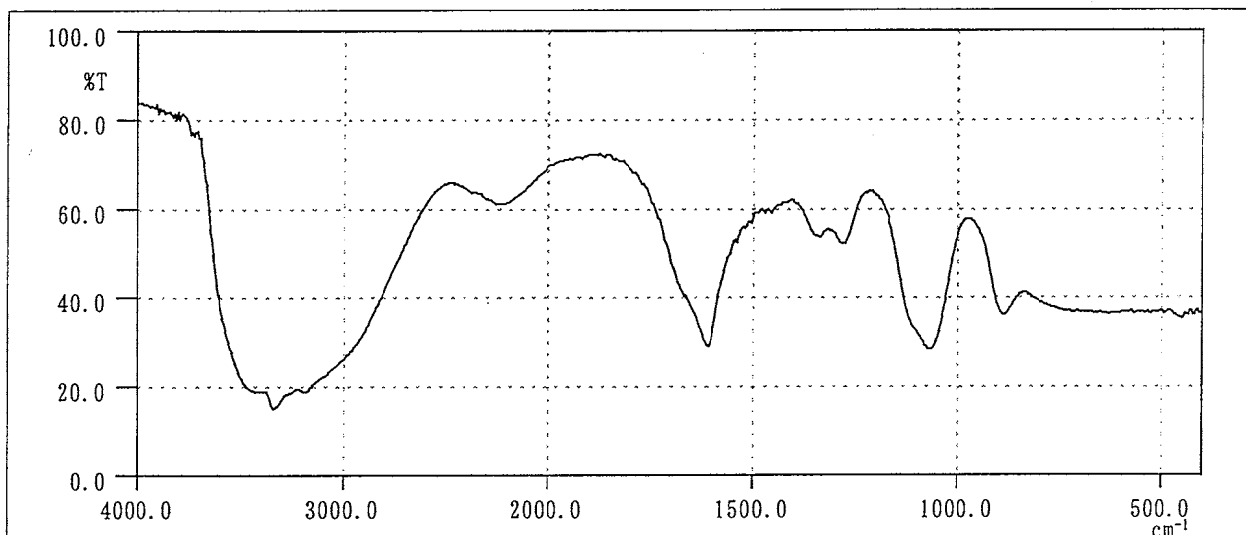
1. Sample : This lot was used from 1997.1.13 to 1997.4.21. Test substance was stored in a dark place at room temperature.

2. Infrared Spectrometry

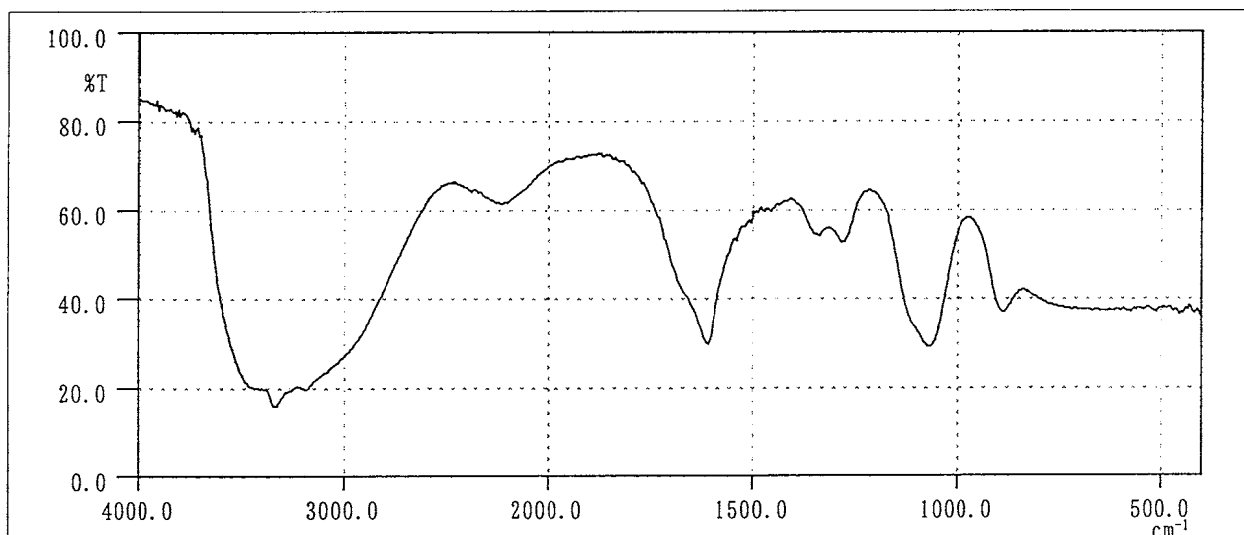
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr Liquid Cell

Resolution : 2.0  $\text{cm}^{-1}$



Infrared Spectrum of Test Substance (date analyzed : 1997.01.13)



Infrared Spectrum of Test Substance (date analyzed : 1997.04.25)

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

### 3. High Performance Liquid Chromatography

Instrument : Hewlett Packard 1090 High Performance Liquid Chromatograph

Column : TSK GEL ODS-80TM (4.6 m  $\phi$   $\times$  15 cm)

Column Temperature : 50 °C

Flow Rate : 0.8 mL/min

Mobile Phase : Methanol : Distilled Water = 9 : 1

Detector : UV (313 nm)

Injection Volume : 10  $\mu$ L

Pre-Treatment : Hydrazine monohydrate was allowed to react with benzaldazine, and analyzed. Benzaldazine was reacted according to the method of Andersson K., et al.\* based on the reaction of the appropriate hydrazine monohydrate and benzaldehyde with hydrochloric acid.

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1997.01.13	1	3.556	100
1997.04.25	1	3.555	100

Results: High performance liquid chromatography indicated one major peak (peak No.1) analyzed at 1997.1.13 and one major peak (peak No.1) analyzed at 1997.4.25. No new trace impurity peak in the test substance analyzed at 1997.4.25 was detected.

(\* Andersson K., Hallgren C., Levin J. -O., and Nilsson C. -A. (1984) Liquid chromatographic determination of hydrazine at sub-parts-per-million levels in workroom air as benzaldazine with the use of chemisorption on benzaldehyde-coated amberlite XAD-2. American Chemical Society., 56, 1730-1731. )

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

## APPENDIX Q 3

CONCENTRATION OF HYDRAZINE MONOHYDRATE IN FORMULATED WATER  
IN THE 2-YEAR DRINKING WATER STUDY

# CONCENTRATION OF HYDRAZINE MONOHYDRATE IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

Date Analyzed	Target Concentration			
	20 <sup>a</sup>	40	80	160
1995.04.17	20.0 (100.0) <sup>b</sup>	41.0 (102.5)	81.8 (102.3)	160.3 (100.2)
1995.06.05	20.1 (100.5)	40.4 (101.0)	78.5 ( 98.1)	157.0 ( 98.1)
1995.08.21	20.2 (101.0)	40.7 (101.8)	81.3 (101.6)	160.1 (100.1)
1995.11.20	20.2 (101.0)	40.8 (102.0)	79.7 ( 99.6)	161.4 (100.9)
1996.02.19	20.0 (100.0)	39.9 ( 99.8)	79.7 ( 99.6)	158.2 ( 98.9)
1996.05.13	20.0 (100.0)	41.1 (102.8)	82.7 (103.4)	163.1 (101.9)
1996.07.29	20.2 (101.0)	40.6 (101.5)	80.7 (100.9)	161.3 (100.8)
1996.10.21	19.9 ( 99.5)	39.4 ( 98.5)	79.3 ( 99.1)	158.1 ( 98.8)
1997.01.13	19.8 ( 99.0)	40.0 (100.0)	80.3 (100.4)	161.0 (100.6)
1997.04.07	19.9 ( 99.5)	40.5 (101.3)	81.5 (101.9)	161.7 (101.1)

<sup>a</sup> ppm

<sup>b</sup> %

Analytical method : The samples were analyzed by the high performance liquid chromatography.

Instrument : Hewlett Packard 1090 High Performance Liquid Chromatograph

Column : TSK GEL ODS-80TM (4.6 mm  $\phi$   $\times$  15 cm) Mobile Phase : Methanol : Distilled Water = 9 : 1

Column Temperature : 50 °C Detector : UV (313 nm)

Flow Rate : 0.8 mL/min Injection Volume : 10  $\mu$ L

Pre-Treatment : Hydrazine monohydrate was allowed to react with benzaldazine, and analyzed. Benzaldazine was reacted according to the method of Andersson K., et al.\* based on the reaction of the appropriate hydrazine monohydrate and benzaldehyde with hydrochloric acid.

(\* Andersson K., Hallgren C., Levin J. -O., and Nilsson C. -A. (1984) Liquid chromatographic determination of hydrazine at sub-parts-per-million levels in workroom air as benzaldazine with the use of chemosorption on benzaldehyde-coated amberlite XAD-2. American Chemical Society., 56, 1730-1731. )



## APPENDIX Q 4

### STABILITY OF HYDRAZINE MONOHYDRATE IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

# STABILITY OF HYDRAZINE MONOHYDRATE IN FORMULATED WATER IN THE 2-YEAR DRINKING WATER STUDY

Date Prepared	Date Analyzed	Target Concentration	
		20 <sup>a</sup>	160
1995.02.20	1995.02.20	20.7 (100) <sup>b</sup>	167.3 (100)
	1995.02.24 <sup>c</sup>	16.0 ( 77.3)	124.0 ( 74.1)

<sup>a</sup> ppm

<sup>b</sup> % (Percentage was based on the concentration on date of preparation.)

<sup>c</sup> Animal room samples

Analytical method : The samples were analyzed by the high performance liquid chromatography.

Instrument : Hewlett Packard 1090 High Performance Liquid Chromatograph

Column : TSK GEL ODS-80TM (4.6 mm  $\phi$   $\times$  15 cm)

Column Temperature : 50 °C

Flow Rate : 0.8 mL/min

Mobile Phase : Methanol : Distilled Water = 9 : 1

Detector : UV (313 nm)

Injection Volume : 10  $\mu$ L

Pre-Treatment : Hydrazine monohydrate was allowed to react with benzaldazine, and analyzed.  
Benzaldazine was reacted according to the method of Andersson K., et al.\* based on the reaction of the appropriate hydrazine monohydrate and benzaldehyde with hydrochloric acid.

(\* Andersson K., Hallgren C., Levin J. -O., and Nilsson C. -A. (1984) Liquid chromatographic determination of hydrazine at sub-parts-per-million levels in workroom air as benzaldazine with the use of chemisorption on benzaldehyde-coated amberlite XAD-2. American Chemical Society., 56, 1730-1731. )

## APPENDIX R 1

### METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS IN THE 2-YEAR DRINKING WATER STUDY OF HYDRAZINE MONOHYDRATE

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

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

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

2) Automatic blood cell differential analyzer (Hitachi 8200 : Hitachi, Ltd.)

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

4) Ames reagent strips for urinalysis (Uro-Labstix : Bayer-Sankyo Co., Ltd.)

## APPENDIX R 2

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

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

Item	Unit	Decimal Place
<b>Hematology</b>		
Red blood cell (RBC)	$\times 10^6/\mu\text{L}$	2
Hemoglobin	g/dL	1
Hematocrit	%	1
Mean corpuscular volume (MCV)	fL	1
Mean corpuscular hemoglobin (MCH)	pg	1
Mean corpuscular hemoglobin concentration (MCHC)	g/dL	1
Platelet	$\times 10^3/\mu\text{L}$	0
White blood cell (WBC)	$\times 10^3/\mu\text{L}$	2
Differential WBC	%	0
<b>Biochemistry</b>		
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
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
Creatine phosphokinase (CPK)	IU/L	0
Urea nitrogen	mg/dL	1
Sodium	mEq/L	0
Potassium	mEq/L	1
Chloride	mEq/L	0
Calcium	mg/dL	1
Inorganic phosphorus	mg/dL	1