

ジクロロメタンのマウスを用いた  
吸入によるがん原性試験報告書

試験番号：0279

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## APPENDIXES

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APPENDIX A 1

CLINICAL OBSERVATION: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
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													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4000 ppm	0	0	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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTIOIN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0



STUDY NO. : 0279  
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													
		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	4000 ppm	0	0	0	0	0	0	0	0	2	1	0	1	1	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0279  
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													
		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	1000 ppm	0	1	0	0	1	0	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	1	0	0	0	0	0	0	1	1	0	0	0
WASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
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CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	2000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
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CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	1000 ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 ppm	2	2	2	2	2	2	3	4	5	5	5	5	5	5
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTOR	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	1000 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	2000 ppm	1	1	1	1	2	2	2	2	3	4	5	5	5	5
	4000 ppm	6	6	6	6	6	6	7	8	8	8	8	8	9	9
MORIBUND SACRIFICE	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	4000 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTON	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	2	2	2	2	3	3	4	5	5	5	6	6	6	7
	1000 ppm	3	3	3	3	3	3	4	4	4	4	5	5	6	7
	2000 ppm	5	7	7	8	9	11	11	12	12	12	12	12	12	13
	4000 ppm	9	9	9	9	9	9	10	11	13	13	14	14	14	15
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	2	3
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 ppm	0	1	1	1	1	1	1	1	2	2	2	2	3	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	1	0	0	0	0	0	0	0	0	0	0	1	1
LATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPILEPSY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		98-7	99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1	1
DEATH	Control	7	8	8	8	9	10	11
	1000 ppm	8	9	9	10	10	11	11
	2000 ppm	13	13	14	15	17	19	20
	4000 ppm	16	19	19	20	21	22	23
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1
	1000 ppm	3	3	4	4	4	4	4
	2000 ppm	1	1	1	1	2	2	4
	4000 ppm	6	6	6	6	7	7	7
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	1
	4000 ppm	0	0	0	0	0	0	0
LATERAL	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	1	0	0
EPILEPSY	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	0
	1000 ppm	1	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	1
	4000 ppm	0	0	0	0	0	1	0
TRAUMA	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	1	1	1	1	1	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	1	1	2	2	2	2	2	2	2
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	2	2	2	2	1	1	1	1	1	1	2	2	2	2
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	2	3	3
	4000 ppm	3	3	3	3	3	3	2	1	0	0	0	0	0	0
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	2000 ppm	3	3	3	3	4	4	4	4	4	4	4	3	4	4
	4000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	1	1	1	3	3	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	1	1	1	1	1	1	1	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	1	1	1	1	1	2	2
	2000 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	2	2	2	4	4	4	4	5	5	5	5	5
	1000 ppm	1	1	3	3	4	4	4	5	5	6	6	6	5	4
	2000 ppm	5	5	5	4	4	4	5	5	5	5	5	5	5	6
	4000 ppm	1	1	1	2	2	2	6	6	5	5	5	5	5	3
M.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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						
		98-7	99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1	1
FROG BELLY	Control	0	0	0	0	0	0	0
	1000 ppm	1	1	1	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	1	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	2	2	3	3	2
	1000 ppm	0	0	3	2	2	2	3
	2000 ppm	0	0	0	0	0	1	1
	4000 ppm	1	0	0	1	1	1	1
INTERNAL MASS	Control	5	5	6	7	6	5	3
	1000 ppm	3	3	3	2	2	2	3
	2000 ppm	6	6	7	5	4	2	2
	4000 ppm	3	3	3	4	4	3	2
M.PERI MOUTH	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.NECK	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	1	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	1	0	0	0	0	0	0

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Clinical sign	Group Name	Administration Week-day													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.TAIL	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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	2	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	1	1	1	1	1	2	2	2
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		98-7	99-7	100-7	101-7	102-7	103-7	104-7	
		1	1	1	1	1	1	1	
M.FORLIMB	Control	0	0	0	0	0	0	0	
	1000 ppm	0	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	0	
	4000 ppm	0	0	0	0	0	0	0	
M.ABDOMEN	Control	0	0	0	0	0	0	0	
	1000 ppm	0	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	0	
	4000 ppm	0	0	0	1	1	1	1	
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	
	1000 ppm	0	0	1	1	1	1	1	
	2000 ppm	0	0	0	0	0	1	1	
	4000 ppm	0	0	0	0	0	0	0	
M.HINDLIMB	Control	0	0	0	1	1	1	1	
	1000 ppm	0	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	0	
	4000 ppm	0	0	0	0	0	0	0	
M.GENITALIA	Control	0	0	1	1	2	2	1	
	1000 ppm	0	0	1	1	1	1	1	
	2000 ppm	0	0	0	0	0	0	0	
	4000 ppm	0	0	0	0	0	0	0	
M.TAIL	Control	1	1	1	1	1	1	1	
	1000 ppm	0	0	0	0	0	0	1	
	2000 ppm	0	0	0	0	0	0	0	
	4000 ppm	0	0	0	0	0	0	0	
EROSION	Control	1	1	1	1	1	1	1	
	1000 ppm	1	1	1	1	1	1	1	
	2000 ppm	0	0	1	1	1	1	1	
	4000 ppm	0	0	0	0	0	0	0	
CRUSTA	Control	0	0	0	0	0	0	0	
	1000 ppm	0	0	0	0	0	0	0	
	2000 ppm	2	1	1	1	1	0	0	
	4000 ppm	0	0	0	0	0	0	0	

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Clinical sign	Group Name	Administration Week-day													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	4000 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													
		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
TORTICOLLIS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	1	0	0	0	1	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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	2	1	1	1	1	0	0	0	0	1	1	1	2
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0

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Clinical sign	Group Name	Administration Week-day						
		98-7	99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1	1
TORTICOLLIS	Control	1	1	1	1	1	1	1
	1000 ppm	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0
	1000 ppm	1	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0
	1000 ppm	1	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	2	1
	4000 ppm	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1	0
	4000 ppm	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
SHALLOW BREATHING	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	1
	4000 ppm	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	0	1
	4000 ppm	0	0	0	0	1	0	0

APPENDIX A 2

CLINICAL OBSERVATION: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )



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Clinical sign	Group Name	Administration Week-day													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	1000 ppm	2	2	2	2	2	2	2	2	3	3	3	4	5	5
	2000 ppm	0	0	0	0	0	1	2	2	3	3	3	3	3	4
	4000 ppm	0	0	0	0	0	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
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	1	1	1	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	3	3	4	4	5	6	6	8	8	8	8	8	8	8
	1000 ppm	5	5	5	5	5	5	5	5	5	5	5	5	6	8
	2000 ppm	4	5	6	6	7	7	9	9	11	11	11	13	14	14
	4000 ppm	1	1	1	1	1	2	2	3	3	4	4	5	7	8
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	2	2
LOCOMOTOR MOVEMENT DECR	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	1	1	2	1	0
FROG BELLY	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4000 ppm	0	0	0	0	1	0	0	0	0	0	1	0	0	0

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		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
DEATH	Control	8	9	9	9	10	11	11	12	12	13	14	14	15	16
	1000 ppm	8	9	11	14	14	14	15	15	16	17	17	17	18	18
	2000 ppm	17	19	20	20	20	22	22	24	25	25	26	26	27	28
	4000 ppm	9	9	9	12	12	12	13	14	15	15	15	15	16	16
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	1000 ppm	2	2	2	2	3	3	3	3	3	3	3	4	4	4
	2000 ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	4000 ppm	2	2	2	3	3	3	3	3	4	4	4	4	5	5
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	0	0	0	0	1	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TREMOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
ROLLING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	1	0	0	0	0	1	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	1	1	1	1	0	1	1	2	2	2	1
	1000 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	2000 ppm	1	1	0	0	0	0	0	0	0	0	0	1	0	0
	4000 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				101-7	102-7	103-7	104-7
		98-7	99-7	100-7					
		1	1	1		1	1	1	1
DEATH	Control	19	19	19		19	19	19	20
	1000 ppm	18	18	18		19	20	20	20
	2000 ppm	28	28	29		29	29	30	30
	4000 ppm	16	18	19		22	23	24	24
MORIBUND SACRIFICE	Control	2	2	2		3	3	4	4
	1000 ppm	4	4	4		4	4	4	4
	2000 ppm	2	2	2		2	2	2	2
	4000 ppm	5	5	5		5	5	5	5
LOCOMOTOR MOVEMENT DECR	Control	0	0	0		0	0	1	0
	1000 ppm	0	0	0		0	0	0	0
	2000 ppm	0	0	0		0	0	0	0
	4000 ppm	0	0	0		0	0	0	0
TREMOR	Control	0	0	0		0	0	0	0
	1000 ppm	0	0	0		0	0	0	0
	2000 ppm	0	0	0		0	0	0	0
	4000 ppm	0	0	0		0	0	0	0
ROLLING	Control	0	0	0		0	0	0	0
	1000 ppm	0	0	0		0	0	0	0
	2000 ppm	0	0	0		0	0	0	0
	4000 ppm	0	0	0		0	0	0	0
WASTING	Control	0	0	0		0	0	0	0
	1000 ppm	0	0	0		0	0	0	0
	2000 ppm	0	0	0		0	0	0	0
	4000 ppm	0	0	0		0	0	0	0
PILOERECTION	Control	0	0	0		0	0	0	0
	1000 ppm	0	0	0		0	0	0	0
	2000 ppm	0	0	0		0	0	0	0
	4000 ppm	0	0	0		0	0	0	0
FROG BELLY	Control	1	1	1		0	0	0	0
	1000 ppm	0	0	0		0	0	0	0
	2000 ppm	0	0	0		0	0	0	0
	4000 ppm	0	1	0		0	0	0	0



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Clinical sign	Group Name	Administration Week-day													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
INTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	1000 ppm	0	0	1	1	1	1	1	1	2	2	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	3	3
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	2
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	0	0
INTERNAL MASS	Control	2	1	1	2	2	2	2	1	1	1	1	2	3	4
	1000 ppm	0	0	0	1	1	1	1	1	1	1	1	2	2	4
	2000 ppm	3	3	2	3	6	6	5	5	4	4	5	4	3	3
	4000 ppm	2	2	2	2	3	3	4	3	3	2	2	2	2	2
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	0	0
M.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	1	1	1	2	1
	1000 ppm	0	1	2	2	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	2	2	2	1	1	2	2	2	2	0	0	0	0
	4000 ppm	2	2	2	1	1	2	3	2	1	1	1	1	2	2
INTERNAL MASS	Control	4	3	5	5	4	3	3	2	3	3	3	3	3	6
	1000 ppm	5	4	5	3	2	2	2	3	2	2	2	2	2	2
	2000 ppm	5	4	4	4	5	3	5	4	4	6	5	5	4	3
	4000 ppm	7	7	7	5	5	5	8	7	6	7	7	7	6	6
M.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	1	1	1	1	1	1	1	1	0	0	0	0
	4000 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0

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		98-7	99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
EYE OPACITY	Control	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1
	1000 ppm	1	1	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	2	1	2	1	1	1	1
INTERNAL MASS	Control	5	6	6	5	5	5	9
	1000 ppm	2	2	2	1	0	0	3
	2000 ppm	4	4	3	3	3	2	2
	4000 ppm	7	6	6	5	5	4	5
M.PERI EAR	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.NECK	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.FORLIMB	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.BREAST	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	1	1	1	1	1



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		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HIND.LIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.HIND.LIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION	Control	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 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													
		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.GENITALIA	Control	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 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													
		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	0
	1000 ppm	0	0	1	2	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	1	1	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
M.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
M.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	1	1	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	1	1	1	1	1	2	2	2	2	2	2	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 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						
		98-7	99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1	1
M.ABDOMEN	Control	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.ANTERIOR.DORSUM	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.POSTERIOR DORSUM	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
M.HINDLIMB	Control	1	1	1	1	1	1	1
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	1	1	1	0	0	0	0
M.GENITALIA	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	1	0	0	0	0	0	0
EDEMA	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
EROSION	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0	0
	1000 ppm	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0



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Clinical sign	Group Name	Administration Week-day													
		1-1	1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7
		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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		14-7	15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7
		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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		28-7	29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7
		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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		42-7	43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7
		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	1	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	1	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	1	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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													
		56-7	57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7
		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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		70-7	71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7
		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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0

(HAN190)

BAIS 3

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

PAGE : 63

Clinical sign	Group Name	Administration Week-day													
		84-7	85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7
		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
	1000 ppm	0	0	0	0	0	1	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	1	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
	1000 ppm	1	0	0	0	0	1	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	1	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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 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
	1000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	4000 ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0

(HAN190)

BATS3

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 64

Clinical sign	Group Name	Administration Week-day						
		98-7	99-7	100-7	101-7	102-7	103-7	104-7
		1	1	1	1	1	1	1
IRREGULAR BREATHING	Control	0	0	0	0	0	1	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	1	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
BRADYPNEA	Control	0	0	0	0	0	0	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	1	0
	1000 ppm	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0

(HAN190)

BAIS3



APPENDIX B 1

BODY WEIGHT CHANGES: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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	1	2	3	4	5
Control	21.8± 0.7	21.6± 0.9	23.1± 0.9	24.3± 1.2	24.9± 1.3	25.8± 1.3	26.4± 1.6
1000 ppm	21.8± 0.7	21.6± 1.0	23.0± 1.3	24.2± 1.5	24.9± 1.4	25.5± 1.4	26.1± 1.6
2000 ppm	21.8± 0.7	21.6± 0.8	23.2± 0.9	24.3± 1.4	25.1± 1.3	26.0± 1.6	26.6± 2.0
4000 ppm	21.8± 0.7	21.6± 1.1	22.8± 1.4	24.7± 1.0	25.4± 1.1	26.4± 1.0*	26.9± 1.0

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

(HAN260)

BATS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 2

Group Name	Administration week						
	6	7	8	9	10	11	12
Control	27.0± 1.6	27.7± 2.0	28.2± 1.8	28.8± 2.2	29.5± 2.3	30.4± 2.5	31.0± 2.8
1000 ppm	26.7± 1.6	27.0± 1.5*	27.6± 1.8	28.2± 1.9	28.8± 1.8	29.2± 1.8*	29.6± 1.9**
2000 ppm	27.2± 1.8	27.8± 1.8	28.2± 1.9	28.9± 2.0	29.5± 2.4	30.0± 2.7	30.7± 2.8
4000 ppm	27.4± 1.0	28.1± 1.2	28.4± 1.4	29.2± 1.6	29.8± 1.7	30.2± 1.9	30.7± 1.9

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

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 3

Group Name	Administration week						
	13	14	18	22	26	30	34
Control	31.9± 2.5	32.6± 2.7	34.0± 2.8	36.0± 3.4	38.6± 3.4	40.3± 3.9	42.0± 4.1
1000 ppm	30.3± 1.7**	30.8± 1.9**	32.6± 2.2*	34.4± 2.7*	36.2± 2.9**	37.8± 3.2**	39.0± 3.5**
2000 ppm	31.6± 2.5	32.5± 2.7	33.9± 2.8	35.6± 3.1	38.0± 3.5	39.4± 3.8	40.9± 4.1
4000 ppm	31.3± 1.9	31.9± 2.0	33.5± 2.3	34.4± 2.6*	36.6± 3.1**	37.3± 3.4**	38.5± 3.5**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration week						
	38	42	46	50	54	58	62
Control	43.5± 4.4	44.7± 4.8	45.5± 4.7	46.3± 4.9	46.9± 5.1	47.0± 5.2	48.2± 5.0
1000 ppm	40.5± 4.0**	41.2± 4.6**	42.3± 4.9**	42.7± 4.8**	43.3± 4.6**	43.7± 4.7**	44.7± 4.6**
2000 ppm	42.5± 4.2	43.4± 4.8	44.2± 4.7	44.3± 4.8	44.9± 4.9	45.3± 5.3	46.2± 5.6
4000 ppm	40.0± 4.1**	40.6± 4.3**	41.1± 4.6**	41.2± 4.6**	42.0± 4.8**	41.8± 4.8**	43.3± 5.2**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDP1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration week						
	66	70	74	78	82	86	90
Control	49.2± 5.3	49.9± 5.4	50.4± 5.4	50.3± 5.5	51.9± 5.8	51.6± 6.2	51.0± 7.1
1000 ppm	45.6± 4.8**	46.8± 5.2*	46.2± 5.6**	46.6± 5.7**	47.2± 5.9**	46.5± 6.8**	45.9± 7.4**
2000 ppm	46.4± 6.0*	47.2± 6.3	47.2± 6.4*	47.2± 6.7*	47.5± 6.9**	46.8± 7.4**	47.3± 7.8*
4000 ppm	43.5± 5.5**	43.8± 5.6**	41.9± 6.2**	42.9± 5.6**	41.9± 5.9**	40.5± 6.0**	39.0± 5.5**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 6

Group Name	Administration week			
	94	98	102	104
Control	49.8± 7.9	48.9± 8.6	47.8± 9.1	48.1± 8.2
1000 ppm	44.2± 7.7**	44.6± 7.4*	44.3± 6.5	43.5± 6.7*
2000 ppm	45.8± 7.2*	43.6± 7.2**	42.1± 7.5**	42.5± 6.6**
4000 ppm	37.0± 5.8**	36.6± 6.5**	34.1± 6.3**	33.6± 5.6**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX B 2

BODY WEIGHT CHANGES: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 7

Group Name	Administration week						
	0	1	1	2	3	4	5
Control	18.3± 0.6	17.5± 0.7	18.8± 0.8	19.9± 0.9	20.7± 0.7	21.3± 0.8	21.9± 1.1
1000 ppm	18.3± 0.6	17.7± 0.6	19.1± 0.6	20.0± 0.6	20.8± 0.8	21.6± 0.8	21.9± 0.9
2000 ppm	18.3± 0.6	17.8± 0.7	19.0± 0.7	20.3± 0.8**	20.9± 0.7	21.9± 0.9**	22.2± 0.8
4000 ppm	18.3± 0.6	17.7± 0.8	18.9± 0.7	20.3± 0.7*	21.3± 0.7**	22.1± 0.7**	22.5± 0.7**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 8

Group Name	Administration week						
	6	7	8	9	10	11	12
Control	22.4± 1.1	22.7± 0.9	23.3± 1.0	23.5± 1.1	23.8± 1.3	24.2± 1.2	24.6± 1.3
1000 ppm	22.5± 0.9	22.9± 1.0	23.6± 0.9	23.7± 1.0	23.7± 1.0	24.0± 1.1	24.5± 1.3
2000 ppm	22.8± 0.9	23.0± 0.8	23.7± 1.0	23.5± 0.9	24.2± 1.1	24.3± 1.1	24.6± 1.0
4000 ppm	22.9± 0.8**	22.9± 0.7	23.7± 0.8	23.6± 0.8	24.1± 0.9	24.3± 0.9	24.5± 0.9

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration week						
	13	14	18	22	26	30	34
Control	25.0± 1.4	25.0± 1.5	26.3± 1.4	27.1± 1.6	27.8± 1.8	28.9± 2.1	29.5± 2.7
1000 ppm	24.8± 1.4	24.9± 1.4	25.9± 1.1	26.8± 1.3	27.2± 1.7	27.7± 1.5*	28.4± 1.7
2000 ppm	24.9± 1.0	24.8± 1.0	26.0± 1.0	26.4± 1.3	27.2± 1.5	27.4± 1.4**	28.1± 1.4
4000 ppm	25.0± 0.9	25.2± 1.1	25.5± 1.0**	26.0± 1.0**	26.8± 1.1**	26.7± 1.1**	27.2± 1.1**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration week	38	42	46	50	54	58	62
Control		29.9± 2.8	30.2± 2.5	30.8± 2.7	30.8± 2.7	31.2± 2.9	31.7± 3.0	32.2± 3.3
1000 ppm		29.0± 2.0	29.0± 1.7	29.5± 2.2	29.6± 2.4	29.4± 2.0*	29.8± 2.1*	30.7± 2.3
2000 ppm		28.3± 1.5*	28.6± 1.7**	28.8± 1.7**	28.9± 1.7**	29.1± 1.9**	29.6± 2.1**	30.2± 2.0**
4000 ppm		27.6± 1.3**	27.5± 1.4**	27.8± 1.4**	27.7± 1.5**	27.8± 1.5**	27.9± 1.6**	28.3± 1.5**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration week						
	66	70	74	78	82	86	90
Control	33.0± 3.3	33.5± 4.1	33.6± 3.8	34.1± 3.9	35.7± 4.5	35.7± 4.7	35.7± 5.0
1000 ppm	31.5± 3.3	31.8± 2.7	31.5± 3.0	31.6± 2.8*	32.2± 3.9**	32.9± 3.3	32.4± 3.6*
2000 ppm	30.5± 2.3**	31.6± 2.3	31.0± 2.2*	31.4± 2.2*	31.4± 2.5**	32.0± 2.0*	32.6± 3.9*
4000 ppm	28.1± 1.6**	28.7± 1.6**	28.3± 2.1**	28.9± 2.7**	28.3± 2.5**	28.6± 2.2**	28.1± 1.9**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 12

Group Name	Administration week			
	94	98	102	104
Control	34.3± 4.2	34.0± 4.2	33.8± 3.4	33.3± 4.1
1000 ppm	32.0± 3.6	32.6± 3.0	32.3± 2.6	32.0± 3.2
2000 ppm	32.0± 3.0	31.8± 2.7	31.1± 2.6**	30.8± 3.1
4000 ppm	27.8± 2.2**	27.9± 2.7**	28.0± 2.3**	27.5± 2.8**

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

(HAN260)

BAIS3

APPENDIX C 1

FOOD CONSUMPTION CHANGES: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 1

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	3.9± 0.2	3.8± 0.3	3.9± 0.2	4.1± 0.3	4.1± 0.2	4.2± 0.2	4.2± 0.3
1000 ppm	3.9± 0.3	3.8± 0.3	4.0± 0.3	4.1± 0.3	4.1± 0.3	4.2± 0.3	4.2± 0.3
2000 ppm	3.9± 0.3	3.8± 0.3	4.0± 0.3*	4.2± 0.3	4.2± 0.3	4.2± 0.3	4.3± 0.3
4000 ppm	3.8± 0.4	4.1± 0.4**	4.3± 0.2**	4.5± 0.2**	4.6± 0.2**	4.4± 0.2**	4.5± 0.2**

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS3



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 2

Group Name	Administration week						
	8	9	10	11	12	13	14
Control	4.3± 0.2	4.3± 0.2	4.3± 0.3	4.4± 0.3	4.3± 0.3	4.3± 0.2	4.3± 0.2
1000 ppm	4.2± 0.3	4.4± 0.2	4.2± 0.3	4.2± 0.3	4.3± 0.3	4.2± 0.3	4.3± 0.3
2000 ppm	4.2± 0.2	4.4± 0.3	4.2± 0.3	4.2± 0.3	4.3± 0.3	4.3± 0.5	4.4± 0.3
4000 ppm	4.6± 0.3**	4.7± 0.3**	4.3± 0.3	4.5± 0.3**	4.7± 0.3**	4.5± 0.3**	4.8± 0.3**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 3

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	4.5± 0.2	4.5± 0.3	4.6± 0.2	4.7± 0.3	4.7± 0.3	5.0± 0.3	4.8± 0.3
1000 ppm	4.5± 0.2	4.5± 0.3	4.6± 0.2	4.6± 0.3	4.7± 0.3	5.1± 0.5	4.7± 0.4
2000 ppm	4.6± 0.3	4.5± 0.3	4.7± 0.3	4.6± 0.3	4.8± 0.4	5.1± 0.3	5.0± 0.4
4000 ppm	4.9± 0.3**	4.9± 0.3**	5.2± 0.4**	5.1± 0.4**	5.2± 0.4**	5.5± 0.5**	5.4± 0.4**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration week	46	50	54	58	62	66	70
Control		4.7± 0.3	4.9± 0.3	4.9± 0.3	5.1± 0.3	5.1± 0.3	5.3± 0.3	5.4± 0.4
1000 ppm		4.7± 0.4	4.8± 0.3	4.9± 0.4	5.0± 0.4	5.0± 0.3	5.2± 0.4	5.5± 0.4
2000 ppm		4.8± 0.4	5.0± 0.4	5.0± 0.3	5.1± 0.4	5.1± 0.4	5.3± 0.5	5.6± 0.5
4000 ppm		5.1± 0.4**	5.2± 0.4**	5.2± 0.4**	5.3± 0.4	5.2± 0.4	5.3± 0.6	5.7± 0.6**

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	5.3± 0.3	5.4± 0.5	5.3± 0.4	5.2± 0.5	5.2± 0.5	5.1± 0.5	5.0± 0.6
1000 ppm	5.2± 0.4	5.3± 0.5	5.2± 0.5	5.1± 0.5	5.0± 0.5	4.9± 0.8	5.0± 0.7
2000 ppm	5.4± 0.4	5.5± 0.5	5.5± 0.4	5.3± 0.5	6.8± 0.6**	5.2± 0.4	5.0± 0.6
4000 ppm	5.4± 0.8	5.5± 0.6	5.5± 0.5	5.3± 0.6	6.6± 0.8**	5.0± 0.8	4.5± 0.9*

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

Test of Dunnett

(IAN260)

BAIS3

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration week	
	102	104
Control	5.1± 0.6	5.2± 0.4
1000 ppm	5.1± 0.4	5.0± 0.5
2000 ppm	5.0± 0.7	4.9± 0.7
4000 ppm	4.8± 1.0	4.7± 0.7**

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

Test of Dunnett

(HAN260)

BAIS3

APPENDIX C 2

FOOD CONSUMPTION CHANGES: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 7

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	3.4± 0.2	3.3± 0.2	3.6± 0.2	3.8± 0.2	4.0± 0.4	4.2± 0.6	4.1± 0.3
1000 ppm	3.4± 0.2	3.4± 0.2	3.7± 0.2	3.8± 0.2	3.9± 0.2	4.1± 0.2	4.2± 0.3
2000 ppm	3.3± 0.2	3.4± 0.2*	3.6± 0.2	3.8± 0.2	4.0± 0.3	4.1± 0.2	4.1± 0.3
4000 ppm	3.3± 0.2	3.5± 0.2**	3.9± 0.3**	4.1± 0.3**	4.2± 0.3**	4.2± 0.3	4.1± 0.3

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 8

Group Name	Administration week						
	8	9	10	11	12	13	14
Control	4.2± 0.3	4.2± 0.3	4.2± 0.4	4.1± 0.3	4.1± 0.3	4.2± 0.2	4.0± 0.3
1000 ppm	4.2± 0.2	4.2± 0.2	4.1± 0.3	4.1± 0.2	4.1± 0.3	4.1± 0.3	4.0± 0.3
2000 ppm	4.2± 0.3	4.2± 0.3	3.9± 0.3**	4.0± 0.3	4.1± 0.3	4.0± 0.3**	4.0± 0.3
4000 ppm	4.5± 0.4**	4.4± 0.4	4.1± 0.4	4.2± 0.3	4.3± 0.4	4.2± 0.3	4.3± 0.5**

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

Test of Dunnett

(HAN260)

BAIS3



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	4.4± 0.3	4.3± 0.4	4.4± 0.4	4.5± 0.4	4.6± 0.5	4.7± 0.5	4.5± 0.4
1000 ppm	4.3± 0.3	4.3± 0.3	4.5± 0.3*	4.4± 0.3	4.5± 0.4	4.7± 0.5	4.5± 0.4
2000 ppm	4.2± 0.3**	4.2± 0.4	4.4± 0.3	4.3± 0.3*	4.4± 0.3	4.7± 0.4	4.5± 0.4
4000 ppm	4.4± 0.3	4.4± 0.3	4.8± 0.5**	4.6± 0.4	4.8± 0.4*	4.9± 0.5	4.7± 0.5*

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration week						
	46	50	54	58	62	66	70
Control	4.4± 0.4	4.4± 0.4	4.4± 0.4	4.7± 0.5	4.6± 0.5	4.6± 0.5	4.7± 0.5
1000 ppm	4.4± 0.4	4.3± 0.4	4.3± 0.4	4.4± 0.4**	4.5± 0.4	4.6± 0.8	4.8± 0.4
2000 ppm	4.2± 0.3	4.3± 0.4	4.4± 0.4	4.5± 0.4*	4.5± 0.4	4.5± 0.4	4.9± 0.8
4000 ppm	4.5± 0.4	4.4± 0.5	4.3± 0.3	4.5± 0.4*	4.5± 0.4	4.5± 0.4	4.8± 0.5

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	4.5± 0.5	4.6± 0.5	4.8± 0.6	4.5± 0.6	4.5± 0.8	4.5± 0.6	4.5± 0.6
1000 ppm	4.5± 0.4	4.6± 0.5	4.6± 0.8	4.7± 0.7	4.6± 0.5	4.6± 0.6	4.7± 0.5
2000 ppm	4.6± 0.4	4.7± 0.4	4.8± 0.6	4.8± 0.6	6.2± 0.7**	4.8± 0.4	4.8± 0.7
4000 ppm	4.7± 0.6	4.6± 0.4	4.7± 0.6	4.6± 0.5	5.9± 0.6**	4.6± 0.5	4.4± 0.4

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

Test of Dunnett

(HAN260)

BAIS3

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration week	
	102	104
Control	4.7± 0.6	4.7± 0.8
1000 ppm	4.8± 0.6	4.7± 0.7
2000 ppm	4.8± 0.5	4.8± 0.5
4000 ppm	4.6± 0.6	4.5± 0.6

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

Test of Dunnett

(IAN260)

BAIS3

APPENDIX D 1

HEMATOLOGY: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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	38	9.28±	1.31	13.3±	1.6	41.3±	4.5	44.9±	3.4	14.4±	0.9	32.1±	1.3	1933±	419
1000 ppm	34	9.20±	1.85	13.8±	2.7**	42.8±	7.6*	47.2±	3.8*	15.1±	0.8**	32.1±	1.5	1879±	560
2000 ppm	26	10.02±	1.45	14.7±	1.7**	45.6±	5.2**	45.7±	2.5	14.8±	0.9	32.4±	1.1	1598±	408*
4000 ppm	19	10.17±	2.00	15.2±	2.5**	47.2±	7.4**	47.0±	4.2	15.0±	1.0*	32.1±	1.4	1638±	581

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

STUDY NO. : 0279  
 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	38	2.36±	1.08	1±	1	34±	15	1±	1	0±	0	3±	2	59±	16	2±	3
1000 ppm	34	2.30±	1.43	1±	2	33±	15	1±	1	0±	0	3±	2	60±	17	2±	2
2000 ppm	26	2.38±	1.13	1±	1	35±	15	1±	2	0±	0	4±	2	56±	17	3±	4
4000 ppm	19	1.68±	1.03	1±	1	41±	19	1±	1	0±	0	4±	2	52±	18	2±	3

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

APPENDIX D 2

HEMATOLOGY: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )



STUDY NO. : 0279  
 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	25	8.34±	1.86	12.5±	2.5	38.7±	6.2	47.6±	6.2	15.2±	1.0	32.1±	2.2	1005±	337
1000 ppm	25	9.27±	1.23	14.3±	1.6*	42.7±	4.9*	46.1±	1.9	15.5±	1.1	33.7±	2.0*	1080±	298
2000 ppm	15	9.36±	0.97	14.4±	1.3*	44.0±	3.7**	47.1±	1.9	15.4±	0.7	32.8±	1.2	1086±	206
4000 ppm	21	8.99±	2.04	13.7±	3.0	42.3±	9.2	48.7±	9.1	15.5±	1.5	32.1±	2.3	1170±	537

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

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	25	2.17±	4.09	1±	2	36±	19	2±	2	0±	0	4±	3	51±	20	6±	5
1000 ppm	25	4.43±	12.69	0±	1	36±	15	1±	1	0±	0	4±	2	52±	17	7±	18
2000 ppm	15	2.04±	1.21	0±	1	34±	15	1±	1	0±	0	5±	3	52±	16	7±	11
4000 ppm	21	1.71±	1.37	2±	4	42±	16	1±	3	0±	0	5±	3	45±	18	5±	7

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS3

APPENDIX E 1

BIOCHEMISTRY: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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	38	5.0±	0.7	2.7±	0.4	1.2±	0.2	0.16±	0.06	181±	37	108±	65	41±	23
1000 ppm	34	5.3±	1.0	2.8±	0.4	1.2±	0.2	0.18±	0.07	184±	36	101±	53	31±	14*
2000 ppm	26	5.2±	1.0	2.8±	0.5	1.2±	0.2	0.18±	0.06	179±	57	122±	97	29±	11*
4000 ppm	19	5.3±	0.7	2.9±	0.4	1.2±	0.2	0.18±	0.04	169±	38	142±	66	31±	14

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 MEASURE. TIME : 1  
 SEX : MALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

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	38	435±	1032	276±	620	1424±	4022	164±	90	77±	117	23.2±	4.2	152±	1
1000 ppm	34	334±	956	184±	499	1064±	2346	153±	68	59±	43	22.3±	11.6*	152±	2
2000 ppm	26	261±	351	165±	212	648±	553	306±	526	92±	137	19.6±	4.7**	151±	2
4000 ppm	19	333±	519**	238±	228**	825±	840*	401±	377**	81±	42*	21.7±	3.8	152±	2

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

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0279  
 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	38	4.3±	0.4	121±	3	8.9±	0.6	6.0±	0.7
1000 ppm	34	4.3±	0.3	121±	3	8.9±	0.8	6.0±	1.4
2000 ppm	26	4.3±	0.3	119±	4	9.1±	0.9	6.1±	1.0
4000 ppm	19	4.2±	0.4	119±	3*	9.3±	1.2	6.1±	0.7

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

Test of Dunnett

(HCL074)

BAIS3

APPENDIX E 2

BIOCHEMISTRY: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 1  
SEX : FEMALE

REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)  
ALL ANIMALS (105W)

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	25	4.7±	0.7	2.6±	0.4	1.3±	0.2	0.17±	0.05	135±	35	86±	71	33±	15
1000 ppm	25	5.0±	0.5	2.8±	0.3	1.3±	0.2	0.17±	0.05	142±	35	79±	52	28±	17
2000 ppm	16	4.9±	0.5	2.8±	0.2	1.3±	0.2	0.19±	0.08	152±	32	76±	28	22±	9
4000 ppm	21	5.2±	1.4	2.9±	0.7*	1.3±	0.2	0.21±	0.09*	135±	44	129±	142	22±	12*

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

Test of Dunnett

(HCL074)

BAIS3



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	GOT I U / ℓ		GPT I U / ℓ		LDH I U / ℓ		ALP I U / ℓ		CPK I U / ℓ		UREA NITROGEN mg / dl		SODIUM mEq / ℓ	
Control	25	114±	78	57±	77	1193±	3454	188±	91	126±	181	22.2±	16.3	151±	3
1000 ppm	25	127±	116	56±	53	532±	607	258±	133	96±	78	17.3±	6.2	151±	2
2000 ppm	16	137±	121	78±	90	700±	1148	268±	151	85±	41	17.6±	6.1	150±	2
4000 ppm	21	414±	450**	309±	443**	1870±	4493**	654±	946**	277±	681*	25.8±	26.7	153±	4**

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

Test of Dunnett

(HCL074)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	POTASSIUM mEq/ℓ	CHLORIDE mEq/ℓ	CALCIUM mg/dℓ	INORGANIC PHOSPHORUS mg/dℓ
Control	25	4.4± 0.4	122± 3	9.0± 0.6	6.5± 1.2
1000 ppm	25	4.4± 0.4	121± 3	9.0± 0.5	6.2± 1.2
2000 ppm	16	4.3± 0.4	119± 3	9.1± 0.8	6.0± 0.8
4000 ppm	21	4.5± 1.0	120± 6	9.4± 1.1	7.5± 2.6

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

Test of Dunnett

(HCL074)

BAIS3

APPENDIX F 1

URINALYSIS: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : MALE

# URINALYSIS

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	pH_____							CHI	Protein_____					CHI	Glucose_____					CHI	Ketone body					CHI	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	38	0	3	9	12	8	5	1		0	5	30	1	2	0		38	0	0	0	0	0		19	16	3	0	0	0		36	0	2	0	0
1000 ppm	35	0	1	3	7	5	15	4	*	0	6	23	3	3	0		35	0	0	0	0	0		22	9	4	0	0	0		30	1	1	2	1
2000 ppm	27	0	1	5	3	6	7	5		0	7	15	3	2	0		27	0	0	0	0	0		16	10	1	0	0	0		25	1	0	0	1
4000 ppm	20	0	2	4	0	4	5	5	*	0	10	9	1	0	0	*	20	0	0	0	0	0		17	2	1	0	0	0	*	19	0	1	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS3

STUDY NO. : 0279  
ANIMAL : MOUSE Grj:BDF1  
MEASURE. TIME : 1  
SEX : MALE

URINALYSIS

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	Urobilinogen ± + 2+ 3+ 4+ CHI
Control	38	38 0 0 0 0
1000 ppm	35	35 0 0 0 0
2000 ppm	27	27 0 0 0 0
4000 ppm	20	20 0 0 0 0

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

Test of CHI SQUARE

(HCL101)

BAIS 3

APPENDIX F 2

URINALYSIS: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 MEASURE. TIME : 1  
 SEX : FEMALE

# URINALYSIS

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	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	2	1	2	8	14	0		0	5	17	4	1	0		27	0	0	0	0	0		17	10	0	0	0	0		22	0	0	1	4
1000 ppm	26	0	1	0	5	4	15	1		0	10	10	5	1	0		26	0	0	0	0	0		12	10	4	0	0	0		23	2	0	0	1
2000 ppm	17	0	0	0	3	2	9	3		1	5	9	2	0	0		17	0	0	0	0	0		10	6	1	0	0	0		16	0	0	1	0
4000 ppm	21	0	0	1	3	5	10	2		2	13	4	1	1	0	**	21	0	0	0	0	0		14	7	0	0	0	0		21	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS3

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
MEASURE. TIME : 1  
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	
1000 ppm	26	26	0	0	0	0	
2000 ppm	17	17	0	0	0	0	
4000 ppm	21	21	0	0	0	0	

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

Test of CHI SQUARE

(HCL101)

BAIS 3



APPENDIX G 1

GROSS FINDINGS: SUMMARY, MOUSE: MALE: ALL ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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 12 (%)	1000 ppm 15 (%)	2000 ppm 24 (%)	4000 ppm 30 (%)
skin/app	wound		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
	thick		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
	scab		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
subcutis	edema		1 ( 8)	1 ( 7)	0 ( 0)	0 ( 0)
	dry		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
	mass		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
lung	red		2 ( 17)	2 ( 13)	0 ( 0)	2 ( 7)
	white zone		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	red zone		0 ( 0)	0 ( 0)	1 ( 4)	1 ( 3)
	nodule		0 ( 0)	3 ( 20)	13 ( 54)	22 ( 73)
lymph node	enlarged		2 ( 17)	5 ( 33)	4 ( 17)	3 ( 10)
	nodule		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
spleen	enlarged		2 ( 17)	4 ( 27)	2 ( 8)	1 ( 3)
	atrophic		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
	red zone		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
	black zone		1 ( 8)	1 ( 7)	0 ( 0)	1 ( 3)
	nodule		1 ( 8)	0 ( 0)	2 ( 8)	1 ( 3)
	adhesion		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	accentuation of white pulp		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
heart	nodule		0 ( 0)	0 ( 0)	3 ( 13)	0 ( 0)
salivary gl	nodule		0 ( 0)	1 ( 7)	1 ( 4)	0 ( 0)
forestomach	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)

STUDY NO. : 0279  
 ANIMAL : MOUSE C<sub>7</sub>:BDF<sub>1</sub>  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 12 (%)	1000 ppm 15 (%)	2000 ppm 24 (%)	4000 ppm 30 (%)
stomach	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	atrophic		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
	pale		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	white zone		3 ( 25)	2 ( 13)	3 ( 13)	0 ( 0)
	red zone		1 ( 8)	0 ( 0)	1 ( 4)	1 ( 3)
	nodule		5 ( 42)	5 ( 33)	13 ( 54)	17 ( 57)
	deformed		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
	nodular		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
pancreas	nodule		0 ( 0)	1 ( 7)	1 ( 4)	0 ( 0)
	adhesion		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
kidney	enlarged		0 ( 0)	0 ( 0)	2 ( 8)	1 ( 3)
	pale		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	white zone		0 ( 0)	1 ( 7)	0 ( 0)	1 ( 3)
	nodule		0 ( 0)	0 ( 0)	1 ( 4)	2 ( 7)
	nodular		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	hydronephrosis		1 ( 8)	1 ( 7)	3 ( 13)	3 ( 10)
urin bladd	enlarged		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
	thick		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	urine:marked retention		2 ( 17)	2 ( 13)	1 ( 4)	0 ( 0)
	urine:red		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
thyroid	nodule		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)

STUDY NO. : 0279  
 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 12 (%)	1000 ppm 15 (%)	2000 ppm 24 (%)	4000 ppm 30 (%)
testis	atrophic		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
epididymis	nodule		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
semin ves	red		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
	brown		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
prep/cli gl	nodule		1 ( 8)	0 ( 0)	0 ( 0)	2 ( 7)
brain	red zone		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
Harder gl	enlarged		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
muscle	nodule		0 ( 0)	0 ( 0)	2 ( 8)	0 ( 0)
pleura	nodule		0 ( 0)	0 ( 0)	1 ( 4)	3 ( 10)
mediastinum	hemorrhage		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
	mass		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
peritoneum	hemorrhage		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	1 ( 4)	1 ( 3)
retroperit	mass		0 ( 0)	1 ( 7)	0 ( 0)	1 ( 3)
abdominal c	hemorrhage		1 ( 8)	0 ( 0)	0 ( 0)	1 ( 3)
	ascites		2 ( 17)	1 ( 7)	0 ( 0)	4 ( 13)
mesenterium	nodule		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
thoracic ca	hemorrhage		1 ( 8)	1 ( 7)	4 ( 17)	2 ( 7)
	pleural fluid		2 ( 17)	3 ( 20)	3 ( 13)	7 ( 23)
other	nose:nodule		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
	ear:absence		1 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)

APPENDIX G 2

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

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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 (%)	1000 ppm 50 (%)	2000 ppm 50 (%)	4000 ppm 50 (%)
skin/app	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	wound		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	erosion		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	thick		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	scab		0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)
subcutis	edema		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	dry		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	mass		0 ( 0)	2 ( 4)	1 ( 2)	0 ( 0)
lung	red		2 ( 4)	2 ( 4)	0 ( 0)	2 ( 4)
	white zone		1 ( 2)	1 ( 2)	1 ( 2)	0 ( 0)
	red zone		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
	nodule		6 ( 12)	16 ( 32)	27 ( 54)	40 ( 80)
lymph node	enlarged		4 ( 8)	6 ( 12)	6 ( 12)	3 ( 6)
	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
spleen	enlarged		2 ( 4)	4 ( 8)	3 ( 6)	1 ( 2)
	atrophic		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	red zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	black zone		1 ( 2)	1 ( 2)	0 ( 0)	1 ( 2)
	nodule		1 ( 2)	1 ( 2)	2 ( 4)	1 ( 2)
	adhesion		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	accentuation of white pulp		1 ( 2)	1 ( 2)	2 ( 4)	0 ( 0)
heart	nodule		0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	1000 ppm 50 (%)	2000 ppm 50 (%)	4000 ppm 50 (%)
salivary gl	nodule		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
forestomach	nodule		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
gl stomach	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
stomach	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
small intes	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	atrophic		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	pale		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	white zone		4 ( 8)	3 ( 6)	4 ( 8)	1 ( 2)
	red zone		2 ( 4)	2 ( 4)	5 ( 10)	3 ( 6)
	nodule		17 ( 34)	18 ( 36)	28 ( 56)	33 ( 66)
	deformed		1 ( 2)	0 ( 0)	1 ( 2)	0 ( 0)
pancreas	nodular		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 2)	2 ( 4)	0 ( 0)
	adhesion		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
kidney	enlarged		0 ( 0)	0 ( 0)	2 ( 4)	1 ( 2)
	pale		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	white zone		0 ( 0)	2 ( 4)	0 ( 0)	1 ( 2)
	nodule		0 ( 0)	0 ( 0)	1 ( 2)	3 ( 6)
	nodular		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	hydronephrosis		2 ( 4)	2 ( 4)	4 ( 8)	3 ( 6)
	enlarged		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)

STUDY NO. : 0279  
 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 (%)	1000 ppm 50 (%)	2000 ppm 50 (%)	4000 ppm 50 (%)
urin bladd	thick		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	urine:marked retention		2 ( 4)	3 ( 6)	1 ( 2)	0 ( 0)
	urine:red		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
thyroid	nodule		0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)
testis	atrophic		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	white zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
epididymis	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
semin ves	enlarged		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	red		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	brown		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
prep/cli gl	nodule		5 ( 10)	1 ( 2)	1 ( 2)	3 ( 6)
brain	red zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
Harder gl	enlarged		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
muscle	nodule		1 ( 2)	1 ( 2)	2 ( 4)	0 ( 0)
pleura	nodule		0 ( 0)	0 ( 0)	1 ( 2)	3 ( 6)
mediastinum	hemorrhage		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	mass		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
peritoneum	hemorrhage		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	1 ( 2)	1 ( 2)
retroperit	nodule		1 ( 2)	0 ( 0)	1 ( 2)	0 ( 0)



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	1000 ppm 50 (%)	2000 ppm 50 (%)	4000 ppm 50 (%)
retroperit	mass		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
abdominal c	hemorrhage		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)
	ascites		2 ( 4)	1 ( 2)	0 ( 0)	4 ( 8)
mesenterium	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
thoracic ca	hemorrhage		1 ( 2)	1 ( 2)	5 ( 10)	2 ( 4)
	pleural fluid		2 ( 4)	3 ( 6)	4 ( 8)	8 ( 16)
other	tail:nodule		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	hindlimb:nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	nose:nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	ear:absence		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)

(HPT080)

BAIS 3

## APPENDIX G 3

GROSS FINDINGS: SUMMARY, MOUSE : MALE : SACRIFICED ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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 38 (%)	1000 ppm 35 (%)	2000 ppm 26 (%)	4000 ppm 20 (%)
skin/app	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	erosion		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
	scab		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
subcutis	mass		0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)
lung	white zone		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)
	nodule		6 ( 16)	13 ( 37)	14 ( 54)	18 ( 90)
lymph node	enlarged		2 ( 5)	1 ( 3)	2 ( 8)	0 ( 0)
spleen	enlarged		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 3)	1 ( 3)	1 ( 4)	0 ( 0)
forestomach	nodule		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
st stomach	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
small intes	nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
liver	white zone		1 ( 3)	1 ( 3)	1 ( 4)	1 ( 5)
	red zone		1 ( 3)	2 ( 6)	4 ( 15)	2 ( 10)
	nodule		12 ( 32)	13 ( 37)	15 ( 58)	16 ( 80)
	deformed		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
pancreas	nodule		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
kidney	white zone		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)
	hydronephrosis		1 ( 3)	1 ( 3)	1 ( 4)	0 ( 0)
urin bladd	urine:marked retention		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

GROSS FINDINGS (SUMMARY)  
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 38 (%)	1000 ppm 35 (%)	2000 ppm 26 (%)	4000 ppm 20 (%)
thyroid	nodule		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
testis	white zone		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
semin ves	enlarged		2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
prep/cli gl	nodule		4 ( 11)	1 ( 3)	1 ( 4)	1 ( 5)
muscle	nodule		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)
peritoneum	nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
retroperit	nodule		1 ( 3)	0 ( 0)	1 ( 4)	0 ( 0)
thoracic ca	hemorrhage		0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)
	pleural fluid		0 ( 0)	0 ( 0)	1 ( 4)	1 ( 5)
other	tail:nodule		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)
	hindlimb:nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)

APPENDIX G 4

GROSS FINDINGS: SUMMARY, MOUSE: FEMALE: ALL ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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 (%)	1000 ppm 50 (%)	2000 ppm 49 (%)	4000 ppm 50 (%)
skin/app	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
subcutis	edema		4 ( 8)	5 ( 10)	6 ( 12)	5 ( 10)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	mass		4 ( 8)	3 ( 6)	3 ( 6)	6 ( 12)
lung	red		2 ( 4)	0 ( 0)	0 ( 0)	1 ( 2)
	red zone		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
	edema		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		5 ( 10)	3 ( 6)	10 ( 20)	26 ( 52)
lymph node	enlarged		7 ( 14)	8 ( 16)	5 ( 10)	4 ( 8)
	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
thymus	enlarged		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
spleen	enlarged		9 ( 18)	10 ( 20)	2 ( 4)	6 ( 12)
	white zone		1 ( 2)	0 ( 0)	1 ( 2)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	deformed		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 2)	2 ( 4)	0 ( 0)	0 ( 0)
heart	white zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
forestomach	nodule		0 ( 0)	0 ( 0)	2 ( 4)	1 ( 2)
gl stomach	thick		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
duodenum	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
small intes	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	torsion		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)

STUDY NO. : 0279  
 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 50 (%)	1000 ppm 50 (%)	2000 ppm 49 (%)	4000 ppm 50 (%)
large intes	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
liver	enlarged		4 ( 8)	6 ( 12)	5 ( 10)	0 ( 0)
	white zone		6 ( 12)	6 ( 12)	8 ( 16)	11 ( 22)
	red zone		1 ( 2)	2 ( 4)	4 ( 8)	6 ( 12)
	nodule		6 ( 12)	7 ( 14)	11 ( 22)	34 ( 68)
	granular		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
pancreas	nodule		2 ( 4)	0 ( 0)	0 ( 0)	1 ( 2)
	cyst		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
kidney	enlarged		2 ( 4)	4 ( 8)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)
	nodule		2 ( 4)	1 ( 2)	0 ( 0)	1 ( 2)
	granular		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	hydronephrosis		2 ( 4)	0 ( 0)	1 ( 2)	1 ( 2)
urin bladd	urine:marked retention		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
pituitary	enlarged		3 ( 6)	3 ( 6)	0 ( 0)	2 ( 4)
	nodule		3 ( 6)	0 ( 0)	2 ( 4)	0 ( 0)
ovary	enlarged		5 ( 10)	5 ( 10)	5 ( 10)	6 ( 12)
	red		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	red zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		1 ( 2)	1 ( 2)	0 ( 0)	1 ( 2)
	cyst		5 ( 10)	5 ( 10)	4 ( 8)	1 ( 2)
uterus	nodule		16 ( 32)	10 ( 20)	16 ( 33)	7 ( 14)

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	1000 ppm 50 (%)	2000 ppm 49 (%)	4000 ppm 50 (%)
uterus	cyst		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
vagina	nodule		2 ( 4)	0 ( 0)	1 ( 2)	1 ( 2)
mammary gl	thick		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
brain	red zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	mass		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
eye	exophthalmos		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
muscle	nodule		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
pleura	nodule		0 ( 0)	0 ( 0)	3 ( 6)	2 ( 4)
mediastinum	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	mass		3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)
peritoneum	nodule		1 ( 2)	2 ( 4)	2 ( 4)	2 ( 4)
	thick		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
retroperit	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
abdominal c	hemorrhage		3 ( 6)	0 ( 0)	1 ( 2)	5 ( 10)
	ascites		8 ( 16)	10 ( 20)	11 ( 22)	4 ( 8)
thoracic ca	hemorrhage		1 ( 2)	0 ( 0)	1 ( 2)	0 ( 0)
	pleural fluid		12 ( 24)	8 ( 16)	13 ( 27)	9 ( 18)
whole body	anemic		1 ( 2)	1 ( 2)	1 ( 2)	0 ( 0)



APPENDIX G 5

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

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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 (%)	1000 ppm 24 (%)	2000 ppm 32 (%)	4000 ppm 29 (%)
subcutis	edema		4 ( 17)	5 ( 21)	6 ( 19)	5 ( 17)
	mass		1 ( 4)	1 ( 4)	2 ( 6)	5 ( 17)
lung	red		2 ( 8)	0 ( 0)	0 ( 0)	1 ( 3)
	red zone		0 ( 0)	1 ( 4)	1 ( 3)	0 ( 0)
	edema		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
	nodule		3 ( 13)	1 ( 4)	4 ( 13)	14 ( 48)
lymph node	enlarged		3 ( 13)	6 ( 25)	4 ( 13)	2 ( 7)
	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
thymus	enlarged		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)
spleen	enlarged		6 ( 25)	7 ( 29)	2 ( 6)	5 ( 17)
	white zone		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
heart	white zone		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
forestomach	nodule		0 ( 0)	0 ( 0)	2 ( 6)	1 ( 3)
stomach	thick		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
small intes	torsion		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
liver	enlarged		4 ( 17)	6 ( 25)	5 ( 16)	0 ( 0)
	white zone		5 ( 21)	6 ( 25)	6 ( 19)	5 ( 17)
	red zone		0 ( 0)	0 ( 0)	1 ( 3)	2 ( 7)
	nodule		2 ( 8)	2 ( 8)	6 ( 19)	18 ( 66)
	granular		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
pancreas	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)

STUDY NO. : 0279  
 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 (%)	1000 ppm 24 (%)	2000 ppm 32 (%)	4000 ppm 29 (%)
pancreas	cyst		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
kidney	enlarged		1 ( 4)	4 ( 17)	0 ( 0)	0 ( 0)
	nodule		2 ( 8)	1 ( 4)	0 ( 0)	0 ( 0)
	granular		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	hydronephrosis		1 ( 4)	0 ( 0)	0 ( 0)	1 ( 3)
	urine:marked retention		1 ( 4)	1 ( 4)	0 ( 0)	0 ( 0)
pituitary	enlarged		0 ( 0)	1 ( 4)	0 ( 0)	1 ( 3)
	nodule		2 ( 8)	0 ( 0)	1 ( 3)	0 ( 0)
	ovary		3 ( 13)	4 ( 17)	5 ( 16)	5 ( 17)
ovary	enlarged		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
	red zone		1 ( 4)	1 ( 4)	0 ( 0)	1 ( 3)
	nodule		1 ( 4)	2 ( 8)	3 ( 9)	1 ( 3)
	cyst		8 ( 33)	8 ( 33)	12 ( 38)	6 ( 21)
uterus	nodule		1 ( 4)	0 ( 0)	1 ( 3)	0 ( 0)
vagina	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
mammary gl	thick		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
brain	red zone		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	mass		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	muscle		0 ( 0)	1 ( 4)	0 ( 0)	1 ( 3)
pleura	nodule		0 ( 0)	0 ( 0)	3 ( 9)	2 ( 7)
mediastinum	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	mass		3 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control 24 (%)	1000 ppm 24 (%)	2000 ppm 32 (%)	4000 ppm 29 (%)
peritoneum	nodule		1 ( 4)	1 ( 4)	2 ( 6)	2 ( 7)
	thick		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
abdominal c	hemorrhage		3 ( 13)	0 ( 0)	1 ( 3)	5 ( 17)
	ascites		8 ( 33)	10 ( 42)	10 ( 31)	3 ( 10)
thoracic ca	hemorrhage		1 ( 4)	0 ( 0)	1 ( 3)	0 ( 0)
	pleural fluid		12 ( 50)	8 ( 33)	12 ( 38)	7 ( 24)
whole body	anemic		1 ( 4)	1 ( 4)	1 ( 3)	0 ( 0)

(IPT080)

BAIS 3

## APPENDIX G 6

GROSS FINDINGS: SUMMARY, MOUSE : FEMALE : SACRIFICED ANIMALS

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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 26 (%)	1000 ppm 26 (%)	2000 ppm 17 (%)	4000 ppm 21 (%)
skin/app	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)
subcutis	nodule		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	mass		3 ( 12)	2 ( 8)	1 ( 6)	1 ( 5)
lung	nodule		2 ( 8)	2 ( 8)	6 ( 35)	12 ( 57)
lymph node	enlarged		4 ( 15)	2 ( 8)	1 ( 6)	2 ( 10)
spleen	enlarged		3 ( 12)	3 ( 12)	0 ( 0)	1 ( 5)
	white zone		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	deformed		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	accentuation of white pulp		1 ( 4)	2 ( 8)	0 ( 0)	0 ( 0)
duodenum	nodule		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
small intes	nodule		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
large intes	nodule		0 ( 0)	0 ( 0)	1 ( 6)	0 ( 0)
liver	white zone		1 ( 4)	0 ( 0)	2 ( 12)	6 ( 29)
	red zone		1 ( 4)	2 ( 8)	3 ( 18)	4 ( 19)
	nodule		4 ( 15)	5 ( 19)	5 ( 29)	15 ( 71)
pancreas	nodule		1 ( 4)	0 ( 0)	0 ( 0)	1 ( 5)
kidney	enlarged		1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 10)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)
	hydronephrosis		1 ( 4)	0 ( 0)	1 ( 6)	0 ( 0)
pituitary	enlarged		3 ( 12)	2 ( 8)	0 ( 0)	1 ( 5)
	nodule		1 ( 4)	0 ( 0)	1 ( 6)	0 ( 0)

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 26 (%)	1000 ppm 26 (%)	2000 ppm 17 (%)	4000 ppm 21 (%)
ovary	enlarged		2 ( 8)	1 ( 4)	0 ( 0)	1 ( 5)
	red		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)
	cyst		4 ( 15)	3 ( 12)	1 ( 6)	0 ( 0)
uterus	nodule		8 ( 31)	2 ( 8)	4 ( 24)	1 ( 5)
	cyst		0 ( 0)	1 ( 4)	1 ( 6)	0 ( 0)
vagina	nodule		1 ( 4)	0 ( 0)	0 ( 0)	1 ( 5)
eye	exophthalmos		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
peritoneum	nodule		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
retroperit	nodule		0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)
abdominal c	ascites		0 ( 0)	0 ( 0)	1 ( 6)	1 ( 5)
thoracic ca	pleural fluid		0 ( 0)	0 ( 0)	1 ( 6)	2 ( 10)

(HPT080)

BAIS3

APPENDIX H 1

ORGAN WEIGHT , ABSOLUTE: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )



STUDY NO. : 0279  
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	38	43.5± 8.0	0.013±	0.004	0.208±	0.037	0.226±	0.021	0.236±	0.023	0.639±	0.057
1000 ppm	35	39.3± 6.9*	0.013±	0.004	0.203±	0.033	0.231±	0.046	0.273±	0.110	0.683±	0.406
2000 ppm	26	39.3± 6.4	0.012±	0.004	0.204±	0.029	0.225±	0.016	0.339±	0.190**	0.629±	0.052
4000 ppm	20	30.6± 6.0**	0.012±	0.004	0.161±	0.038**	0.185±	0.020**	0.463±	0.214**	0.535±	0.050**

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

Test of Dunnett

(HCL040)

BAIS 3

STUDY NO. : 0279  
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	38	0.100±	0.071	1.835±	0.636	0.459±	0.015
1000 ppm	35	0.116±	0.091	1.923±	0.735	0.463±	0.014
2000 ppm	26	0.132±	0.092	2.055±	0.891	0.461±	0.011
4000 ppm	20	0.077±	0.043	2.376±	0.799	0.452±	0.014

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

Test of Dunnett

(HCL040)

BATS3

## APPENDIX H 2

ORGAN WEIGHT , ABSOLUTE: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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	29.0± 3.9	0.015±	0.003	0.113±	0.149	0.178±	0.021	0.226±	0.023	0.540±	0.366
1000 ppm	26	28.0± 2.8	0.017±	0.009	0.055±	0.066	0.178±	0.022	0.249±	0.072	0.446±	0.043
2000 ppm	17	27.2± 2.8	0.016±	0.003	0.036±	0.029*	0.171±	0.024	0.303±	0.128*	0.594±	0.610
4000 ppm	21	24.1± 2.9**	0.014±	0.003	0.070±	0.147*	0.147±	0.014**	0.279±	0.092**	0.447±	0.103

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

Test of Dunnett

(HCL040)

BATS3

STUDY NO. : 0279  
ANIMAL : MOUSE C-j: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	0.205±	0.189	1.795±	1.133	0.480±	0.022
1000 ppm	26	0.193±	0.203	1.588±	0.567	0.476±	0.021
2000 ppm	17	0.127±	0.080	1.524±	0.362	0.476±	0.020
4000 ppm	21	0.100±	0.084**	2.403±	1.396*	0.464±	0.019

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

Test of Dunnett

(HCL040)

BAIS3

APPENDIX I 1

ORGAN WEIGHT, RELATIVE: SUMMARY, MOUSE: MALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
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	38	43.5± 8.0	0.031± 0.012	0.493± 0.114	0.541± 0.130	0.563± 0.127	1.522± 0.336
1000 ppm	35	39.3± 6.9*	0.035± 0.013	0.526± 0.108	0.611± 0.204	0.728± 0.409	1.844± 1.506
2000 ppm	26	39.3± 6.4	0.033± 0.013	0.530± 0.094	0.591± 0.127	0.896± 0.562**	1.646± 0.331
4000 ppm	20	30.6± 6.0**	0.040± 0.013	0.544± 0.161	0.618± 0.101**	1.596± 0.882**	1.787± 0.237**

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

Test of Dunnett

(HCL042)

BAIS3

STUDY NO. : 0279  
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	38	0.250± 0.217	4.584± 2.769	1.098± 0.240
1000 ppm	35	0.326± 0.308	5.158± 2.618	1.216± 0.233
2000 ppm	26	0.363± 0.294	5.504± 3.293	1.205± 0.207
4000 ppm	20	0.258± 0.141	8.142± 3.376**	1.523± 0.262**

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

(HCL042)

BAIS 3



APPENDIX I 2

ORGAN WEIGHT, RELATIVE: SUMMARY, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY NO. : 0279  
 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	29.0± 3.9	0.054± 0.011	0.366± 0.456	0.620± 0.103	0.793± 0.127	1.915± 1.444
1000 ppm	26	28.0± 2.8	0.061± 0.032	0.197± 0.228	0.640± 0.096	0.906± 0.331	1.608± 0.203
2000 ppm	17	27.2± 2.8	0.058± 0.011	0.132± 0.092	0.632± 0.106	1.129± 0.533**	2.147± 1.998
4000 ppm	21	24.1± 2.9**	0.057± 0.015	0.272± 0.552	0.611± 0.060	1.171± 0.425**	1.851± 0.346**

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

Test of Dunnett

(HCL042)

BAIS3

STUDY NO. : 0279  
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	0.723± 0.686	6.124± 3.304	1.680± 0.226
1000 ppm	26	0.697± 0.738	5.704± 2.079	1.720± 0.206
2000 ppm	17	0.473± 0.303	5.586± 1.198	1.765± 0.187
4000 ppm	21	0.395± 0.260	9.727± 4.806**	1.946± 0.231**

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

Test of Dunnett

(HCL042)

BAIS 3

APPENDIX J 1

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app	<50>																
	ulcer	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammation	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	epidermal cyst	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 )
subcutis	<50>																
	xanthogranuloma	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 )
[Respiratory system]																	
nasal cavit	<50>																
	thrombus	2	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	mineralization	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 4 )	( 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. : 0279  
 ANIMAL : MOUSE C-j:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
nasal cavit		<50>				<50>				<50>				<50>				<50>			
	rhinitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )
	eosinophilic change:olfactory epithelium	19	0	0	0	8	1	0	0 *	6	1	0	0 **	5	0	0	0 **	5	0	0	0 **
		( 38 )	( 0 )	( 0 )	( 0 )	( 16 )	( 2 )	( 0 )	( 0 )	( 12 )	( 2 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )
	eosinophilic change:respiratory epithelium	10	0	0	0	6	1	0	0	12	2	0	0	9	0	0	0	9	0	0	0
		( 20 )	( 0 )	( 0 )	( 0 )	( 12 )	( 2 )	( 0 )	( 0 )	( 24 )	( 4 )	( 0 )	( 0 )	( 18 )	( 0 )	( 0 )	( 0 )	( 18 )	( 0 )	( 0 )	( 0 )
	respiratory metaplasia:olfactory epithelium	11	0	0	0	8	0	0	0	17	0	0	0	19	0	0	0	19	0	0	0
		( 22 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 34 )	( 0 )	( 0 )	( 0 )	( 38 )	( 0 )	( 0 )	( 0 )	( 38 )	( 0 )	( 0 )	( 0 )
	respiratory metaplasia:gland	5	0	0	0	7	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0
		( 10 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )
	atrophy:olfactory epithelium	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
nasopharynx		<50>				<50>				<50>				<50>				<50>			
	eosinophilic change	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
larynx		<50>				<50>				<50>				<49>				<49>			
	eosinophilic change	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe  
 < a > a : Number of animals examined at the site  
 b 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
trachea	eosinophilic change	<50>				<50>				<50>				<49>							
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
lung	congestion	<50>				<50>				<50>				<50>							
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hemorrhage	0	0	1	0	4	1	1	0	2	2	3	0	2	0	1	1	2	0	1	1
		( 0 )	( 0 )	( 2 )	( 0 )	( 8 )	( 2 )	( 2 )	( 0 )	( 4 )	( 4 )	( 6 )	( 0 )	( 4 )	( 0 )	( 2 )	( 2 )	( 4 )	( 0 )	( 2 )	( 2 )
	thrombus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammatory infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	granulation	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	osseous metaplasia	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	pneumonia:NOS	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 )	( 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 50				4000 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	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	5 ( 10 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:terminal bronchiole	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	5 ( 10 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	13 ( 26 )	0 ( 0 )	0 ( 0 )	0 ** ( 0 )
	hyperplasia:epithelium,alveolar duct	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	7 ( 14 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
[Hematopoietic system]																	
bone marrow		<50>				<50>				<50>				<50>			
	atrophy	2 ( 4 )	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 )
	erythropoiesis:increased	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulopoiesis:increased	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	xanthogranuloma	0 ( 0 )	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 )

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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 5

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
Lymph node		<50>				<50>				<50>				<50>			
	granulation	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	lymphadenitis	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 )
	follicular hyperplasia	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
spleen		<50>				<50>				<50>				<50>			
	atrophy	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	deposit of melanin	0	0	0	0	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 )
	extramedullary hematopoiesis	8	4	2	3	6	7	6	0	9	13	4	1	10	12	4	1
		( 16 )	( 8 )	( 4 )	( 6 )	( 12 )	( 14 )	( 12 )	( 0 )	( 18 )	( 26 )	( 8 )	( 2 )	( 20 )	( 24 )	( 8 )	( 2 )
	hyperplasia:vascular	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	follicular hyperplasia	3	0	0	0	4	0	0	0	2	0	0	0	1	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )

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

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

b : Number of animals with lesion

( c ) c : b / a \* 100

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 6

		Group Name No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50				
Organ_____	Findings_____		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	
[Circulatory system]																			
heart	thrombus		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 )	
	necrosis:focal		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
	mineralization		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
	arteritis		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 )	
	artery/aort	arteritis		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 )	
[Digestive system]																			
tooth	dysplasia		39 ( 78 )	5 ( 10 )	0 ( 0 )	0 ( 0 )	31 ( 62 )	3 ( 6 )	1 ( 2 )	0 ( 0 )	26 ( 52 )	4 ( 8 )	0 ( 0 )	0 ( 0 )	** ( 0 )	15 ( 30 )	1 ( 2 )	0 ( 0 )	** ( 0 )

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

STUDY NO. : 0279  
 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 No. of Animals on Study Grade				Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
tongue		<50>				<50>				<50>				<50>				<50>			
	arteritis	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
esophagus		<50>				<50>				<50>				<49>				<50>			
	granulation	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
stomach		<50>				<50>				<50>				<50>				<50>			
	ulcer:forestomach	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	erosion:glandular stomach	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	hyperplasia:glandular stomach	12	21	9	0	9	22	7	0	14	26	6	0	30	11	0	0	30	11	0	0 **
		( 24)	( 42)	( 18)	( 0)	( 18)	( 44)	( 14)	( 0)	( 28)	( 52)	( 12)	( 0)	( 60)	( 22)	( 0)	( 0)	( 60)	( 22)	( 0)	( 0)
small intes		<50>				<50>				<50>				<50>				<50>			
	erosion	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
liver		<50>				<50>				<50>				<50>				<50>			
	angiectasis	2	1	3	0	2	0	0	0	7	0	2	0	2	0	1	0	2	0	1	0
		( 4)	( 2)	( 6)	( 0)	( 4)	( 0)	( 0)	( 0)	( 14)	( 0)	( 4)	( 0)	( 4)	( 0)	( 2)	( 0)	( 4)	( 0)	( 2)	( 0)

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

STUDY NO. : 0279  
 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				1000 ppm				2000 ppm				4000 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	hemorrhage		<50>				<50>				<50>				<50>			
			0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	necrosis:central		0	2	0	0	1	0	0	0	0	0	0	0	0	1	0	0
			( 0 )	( 4 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )
	necrosis:focal		3	2	0	0	3	4	0	0	3	2	0	0	3	4	3	0
			( 6 )	( 4 )	( 0 )	( 0 )	( 6 )	( 8 )	( 0 )	( 0 )	( 6 )	( 4 )	( 0 )	( 0 )	( 6 )	( 8 )	( 6 )	( 0 )
	fatty change		0	0	0	0	4	0	0	0	8	1	0	0 **	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 16 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	
fatty change:central		3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	
		( 6 )	( 0 )	( 0 )	( 0 )	( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	
degeneration:central		0	1	0	0	1	0	0	0	7	1	0	0 *	2	0	0	0	
		( 0 )	( 2 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 14 )	( 2 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	
granulation		27	0	0	0	16	2	0	0 *	13	4	1	0 **	9	1	0	0 **	
		( 54 )	( 0 )	( 0 )	( 0 )	( 32 )	( 4 )	( 0 )	( 0 )	( 26 )	( 8 )	( 2 )	( 0 )	( 18 )	( 2 )	( 0 )	( 0 )	
metaplasia:limiting ridge		1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	
		( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe  
 < a > a : Number of animals examined at the site  
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HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)  
 ALL ANIMALS (0-105W)

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
Liver		<50>				<50>				<50>				<50>				<50>			
	clear cell focus	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	acidophilic cell focus	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	4 ( 8 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus	1 ( 2 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	6 ( 12 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	2 ( 4 )	1 ( 2 )	0 ( 0 )	2 ( 4 )	2 ( 4 )	1 ( 2 )	0 ( 0 )	5 ( 10 )	2 ( 4 )	0 ( 0 )	0 ( 0 )
	vacuolated 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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mixed cell focus	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 )
	bile duct hyperplasia	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	bile ductular proliferation	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	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 )
	swelling:central	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 10

Organ_____	Findings_____	Group Name	Control				1000 ppm				2000 ppm				4000 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>			
	biliary cyst		1	0	0	0	3	0	0	0	0	1	0	0	2	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	vacuolic change:peripheral		0	0	0	0	0	0	0	0	0	0	0	14	1	0	0 **	
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 28 )	( 2 )	( 0 )	( 0 )	
pancreas			<50>				<50>				<50>				<50>			
	atrophy		0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	
	fatty metamorphosis		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	
	islet cell hyperplasia		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
			( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	
[Urinary system]																		
kidney			<50>				<50>				<50>				<50>			
	mast cell		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	
Grade	1 : Slight	2 : Moderate	3 : Marked	4 : Severe														
< a >	a : Number of animals examined at the site																	
b	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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 11

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<50>				<50>				<50>				<50>			
	infarct	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 )	1 ( 2 )	0 ( 0 )	0 ( 0 )
	basophilic change	36 ( 72 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	24 ( 48 )	3 ( 6 )	1 ( 2 )	0 ( 0 )	21 ( 42 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	16 ( 32 )	0 ( 0 )	0 ( 0 )
	hyaline cast	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	2 ( 4 )
	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 )
	lymphocytic infiltration	20 ( 40 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )
	inflammatory polyp	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 4 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	1 ( 2 )
	vacuolization of proximal tubule	38 ( 78 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 12 )	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 )	2 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	4 ( 8 )	3 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 6 )	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. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 12

		Group Name	Control				1000 ppm				2000 ppm				4000 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			<50>				<50>				<50>				<50>			
	retention cyst		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)
	mineralization:papilla		9	0	0	0	6	0	0	0	3	0	0	0	2	0	0	0
			( 18)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)
	atypical tubule hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	eosinophilic droplet:proximal tubule		3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 6)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
urin bladd			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
			( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
[Endocrine system]																		
pituitary			<49>				<50>				<50>				<50>			
	cyst		3	0	0	0	4	0	0	0	6	0	0	0	3	1	0	0
			( 6)	( 0)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 6)	( 2)	( 0)	( 0)
Grade	1 : Slight	2 : Moderate	3 : Marked	4 : Severe														
< a >	a : Number of animals examined at the site																	
b	b : Number of animals with lesion																	
( c )	c : b / a * 100																	
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																		



STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 13

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
pituitary		<49>				<50>				<50>				<50>			
	hyperplasia	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	Rathke pouch	5 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
adrenal		<50>				<50>				<50>				<50>			
	spindle-cell hyperplasia	21 ( 42)	1 ( 2)	0 ( 0)	0 ( 0)	21 ( 42)	1 ( 2)	0 ( 0)	0 ( 0)	22 ( 44)	0 ( 0)	0 ( 0)	0 ( 0)	12 ( 24)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:cortical cell	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:medulla	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)
	focal fatty change:cortex	8 ( 16)	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)

[Reproductive system]

testis		<50>				<50>				<50>				<50>			
	atrophy	21 ( 42)	15 ( 30)	12 ( 24)	0 ( 0)	16 ( 32)	16 ( 32)	16 ( 32)	0 ( 0)	5 ( 10)	34 ( 68)	11 ( 22)	0 ( 0)	5 ( 10)	28 ( 56)	16 ( 32)	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
testis	mineralization		<50>				<50>				<50>				<50>			
			23	6	7	0	14	26	5	0 **	15	26	6	0 **	10	25	10	0 **
			( 46)	( 12)	( 14)	( 0)	( 28)	( 52)	( 10)	( 0)	( 30)	( 52)	( 12)	( 0)	( 20)	( 50)	( 20)	( 0)
	spermatogenic granuloma		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)
	xanthogranuloma		0	1	0	0	1	1	0	0	0	1	0	0	1	0	0	0
			( 0)	( 2)	( 0)	( 0)	( 2)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
epididymis	spermatogenic granuloma		<50>				<50>				<50>				<50>			
			3	0	0	0	0	1	0	0	1	0	0	0	2	2	0	0
			( 6)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 4)	( 4)	( 0)	( 0)
	xanthogranuloma		0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 4)	( 2)	( 0)	( 0)
prep/cli gl	duct ectasia		<50>				<50>				<50>				<49>			
			0	4	0	0	0	1	0	0	0	1	0	0	0	2	0	0
			( 0)	( 8)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)
	inflammation		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)

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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 15

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 50				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Nervous system]																	
brain		<50>				<50>				<50>				<50>			
	mineralization	31	1	0	0	28	0	0	0	27	2	0	0	11	0	0	0 **
		( 62)	( 2)	( 0)	( 0)	( 56)	( 0)	( 0)	( 0)	( 54)	( 4)	( 0)	( 0)	( 22)	( 0)	( 0)	( 0)
[Special sense organs/appandage]																	
eye		<50>				<50>				<50>				<50>			
	iritis	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)
	mineralization:cornea	4	1	0	0	9	0	0	0	5	0	0	0	6	0	0	0
		( 8)	( 2)	( 0)	( 0)	( 18)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)
Harder gl		<50>				<50>				<50>				<50>			
	hyperplasia	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
[Body cavities]																	
mediastinum		<50>				<50>				<50>				<50>			
	inflammation	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)

Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe  
 < a > a : Number of animals examined at the site  
 b : 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 50				4000 ppm 50			
			1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Body cavities]																		
peritoneum	xanthogranuloma		<50>				<50>				<50>				<50>			
		1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
adipose	hemorrhage		<50>				<50>				<50>				<50>			
		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 )	
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)																		

BA1S3

APPENDIX J 2

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj: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				1000 ppm 15				2000 ppm 24				4000 ppm 30			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app		<12>				<15>				<24>				<30>			
	ulcer	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 8)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammation	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
[Respiratory system]																	
nasal cavit		<12>				<15>				<24>				<30>			
	thrombus	2	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
		( 17)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)
	mineralization	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 8)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	rhinitis	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)	( 10)	( 0)	( 0)	( 0)
	eosinophilic change:olfactory epithelium	0	0	0	0	1	0	0	0	2	1	0	0	4	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 8)	( 4)	( 0)	( 0)	( 13)	( 0)	( 0)	( 0)
	eosinophilic change:respiratory epithelium	0	0	0	0	0	0	0	0	5	2	0	0	6	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 21)	( 8)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)

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

STUDY NO. : 0279  
 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	Group Name No. of Animals on Study Grade	Control 12				1000 ppm 15				2000 ppm 24				4000 ppm 30			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
nasal cavity			<12>				<15>				<24>				<30>			
	respiratory metaplasia:olfactory epithelium		4	0	0	0	2	0	0	0	4	0	0	0	10	0	0	0
			( 33)	( 0)	( 0)	( 0)	( 13)	( 0)	( 0)	( 0)	( 17)	( 0)	( 0)	( 0)	( 33)	( 0)	( 0)	( 0)
	respiratory metaplasia:gland		2	0	0	0	3	0	0	0	2	0	0	0	3	0	0	0
			( 17)	( 0)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
	atrophy:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)
nasopharynx			<12>				<15>				<24>				<30>			
	eosinophilic change		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
lung			<12>				<15>				<24>				<30>			
	congestion		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 8)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	hemorrhage		0	0	1	0	2	1	1	0	1	2	3	0	2	0	1	1
			( 0)	( 0)	( 8)	( 0)	( 13)	( 7)	( 7)	( 0)	( 4)	( 8)	( 13)	( 0)	( 7)	( 0)	( 3)	( 3)
	inflammatory infiltration		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)

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. : 0279  
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	Control No. of Animals on Study Grade				1000 ppm 15				2000 ppm 24				4000 ppm 30			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Respiratory system]

lung		<12>				<15>				<24>				<30>			
	pneumonia:NOS	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 )	( 0 )	( 0 )
	bronchiolar-alveolar cell hyperplasia	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
	hyperplasia:terminal bronchiole	0	0	0	0	0	0	0	0	1	0	0	0	10	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 33 )	( 0 )	( 0 )	( 0 )
	hyperplasia:epithelium,alveolar duct	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 )

[Hematopoietic system]

bone marrow		<12>				<15>				<24>				<30>			
	atrophy	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 17 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
	erythropoiesis:increased	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	granulopoiesis:increased	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 4 )	( 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. : 0279  
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	Control 12				1000 ppm 15				2000 ppm 24				4000 ppm 30			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
bone marrow		<12>				<15>				<24>				<30>			
	xanthogranuloma	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
lymph node		<12>				<15>				<24>				<30>			
	follicular hyperplasia	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 13 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
spleen		<12>				<15>				<24>				<30>			
	atrophy	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
	deposit of melanin	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
	extramedullary hematopoiesis	1	1	1	3	3	2	3	0	3	8	4	1	8	8	3	1
		( 8 )	( 8 )	( 8 )	( 25 )	( 20 )	( 13 )	( 20 )	( 0 )	( 13 )	( 33 )	( 17 )	( 4 )	( 27 )	( 27 )	( 10 )	( 3 )
	hyperplasia:vascular	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
[Circulatory system]																	
heart		<12>				<15>				<24>				<30>			
	thrombus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 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. : 0279  
 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 No. of Animals on Study Grade	Control 12				1000 ppm 15				2000 ppm 24				4000 ppm 30			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																		
heart	necrosis:focal		<12>				<15>				<24>				<30>			
			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 )
	mineralization		<12>				<15>				<24>				<30>			
			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 )	( 10 )	( 0 )	( 0 )	( 0 )
[Digestive system]																		
tooth	dysplasia		<12>				<15>				<24>				<30>			
			9	0	0	0	6	1	0	0	11	0	0	0	6	0	0	0 **
			( 75 )	( 0 )	( 0 )	( 0 )	( 40 )	( 7 )	( 0 )	( 0 )	( 46 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )
tongue	arteritis		<12>				<15>				<24>				<30>			
			0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
stomach	hyperplasia:glandular stomach		<12>				<15>				<24>				<30>			
			5	1	0	0	5	3	0	0	12	8	0	0	18	4	0	0
			( 42 )	( 8 )	( 0 )	( 0 )	( 33 )	( 20 )	( 0 )	( 0 )	( 50 )	( 33 )	( 0 )	( 0 )	( 60 )	( 13 )	( 0 )	( 0 )
liver	angiectasis		<12>				<15>				<24>				<30>			
			0	0	2	0	1	0	0	0	4	0	2	0	2	0	1	0
			( 0 )	( 0 )	( 17 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 8 )	( 0 )	( 7 )	( 0 )	( 3 )	( 0 )

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

STUDY NO. : 0279  
 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	Control No. of Animals on Study Grade				1000 ppm 15				2000 ppm 24				4000 ppm 30			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<12>				<15>				<24>				<30>			
	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 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	necrosis:central	0 ( 0 )	2 ( 17 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )
	necrosis:focal	2 ( 17 )	1 ( 8 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	4 ( 27 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	3 ( 10 )	3 ( 10 )	0 ( 0 )
	fatty change	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	fatty change:central	1 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	degeneration:central	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 13 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulation	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus	0 ( 0 )	1 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	1 ( 4 )	0 ( 0 )	2 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

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

STUDY NO. : 0279  
 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	Control No. of Animals on Study Grade				1000 ppm 15				2000 ppm 24				4000 ppm 30			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<12>				<15>				<24>				<30>			
	bile duct hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
	bile ductular proliferation	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 )
	swelling:central	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
	biliary cyst	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	vacuolic change:peripheral	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 )	( 10 )	( 0 )	( 0 )	( 0 )
[Urinary system]																	
kidney		<12>				<15>				<24>				<30>			
	infarct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )
	basophilic change	4	0	0	0	4	1	0	0	0	0	0	0 *	4	0	0	0
		( 33 )	( 0 )	( 0 )	( 0 )	( 27 )	( 7 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 13 )	( 0 )	( 0 )	( 0 )
Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe																	
< a >		a : Number of animals examined at the 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. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 15				2000 ppm 24				4000 ppm 30			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<12>				<15>				<24>				<30>			
	hyaline cast	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 7)	( 0)
	lymphocytic infiltration	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0 *
		( 25)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammatory polyp	1	0	0	0	0	0	0	0	2	1	0	0	1	0	1	0
		( 8)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 8)	( 4)	( 0)	( 0)	( 3)	( 0)	( 3)	( 0)
	vacuolization of proximal tubule	5	0	0	0	0	0	0	0 *	0	0	0	0 **	0	0	0	0 **
		( 42)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	hydronephrosis	0	0	1	0	0	1	0	0	0	4	2	0	0	0	3	1
		( 0)	( 0)	( 8)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 17)	( 8)	( 0)	( 0)	( 0)	( 10)	( 3)
	mineralization: papilla	1	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0
		( 8)	( 0)	( 0)	( 0)	( 13)	( 0)	( 0)	( 0)	( 13)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)
	eosinophilic droplet: proximal tubule	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0 *
		( 17)	( 8)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)

[Endocrine system]

pituitary		<11>				<15>				<24>				<30>			
	cyst	0	0	0	0	1	0	0	0	4	0	0	0	2	1	0	0
		( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 17)	( 0)	( 0)	( 0)	( 7)	( 3)	( 0)	( 0)

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

STUDY NO. : 0279  
 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 No. of Animals on Study Grade	Control 12				1000 ppm 15				2000 ppm 24				4000 ppm 30			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Endocrine system]

pituitary	hyperplasia	<11>				<15>				<24>				<30>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 9)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	Rathke pouch	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		( 9)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)
adrenal	spindle-cell hyperplasia	<12>				<15>				<24>				<30>			
		4	0	0	0	4	0	0	0	4	0	0	0	3	0	0	0
		( 33)	( 0)	( 0)	( 0)	( 27)	( 0)	( 0)	( 0)	( 17)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)
	focal fatty change: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)	( 3)	( 0)	( 0)	( 0)

[Reproductive system]

testis	atrophy	<12>				<15>				<24>				<30>			
		6	3	1	0	8	2	2	0	5	17	2	0 *	5	17	7	0 *
		( 50)	( 25)	( 8)	( 0)	( 53)	( 13)	( 13)	( 0)	( 21)	( 71)	( 8)	( 0)	( 17)	( 57)	( 23)	( 0)
	mineralization	6	0	1	0	5	6	0	0	9	11	2	0 *	7	13	5	0 *
		( 50)	( 0)	( 8)	( 0)	( 33)	( 40)	( 0)	( 0)	( 38)	( 46)	( 8)	( 0)	( 23)	( 43)	( 17)	( 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. : 0279  
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 12				1000 ppm 15				2000 ppm 24				4000 ppm 30			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
testis			<12>				<15>				<24>				<30>			
	xanthogranuloma		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 )	( 4 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
epididymis			<12>				<15>				<24>				<30>			
	spermatogenic granuloma		0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 3 )	( 3 )	( 0 )	( 0 )
	xanthogranuloma		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 )	( 4 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
prep/cli gl			<12>				<15>				<24>				<29>			
	duct ectasia		0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )
[Nervous system]																		
brain			<12>				<15>				<24>				<30>			
	mineralization		5	0	0	0	8	0	0	0	9	0	0	0	5	0	0	0
			( 42 )	( 0 )	( 0 )	( 0 )	( 53 )	( 0 )	( 0 )	( 0 )	( 38 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 0 )	( 0 )
[Special sense organs/appandage]																		
eye			<12>				<15>				<24>				<30>			
	mineralization:cornea		0	0	0	0	3	0	0	0	1	0	0	0	3	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 11

		Group Name	Control				1000 ppm				2000 ppm				4000 ppm			
		No. of Animals on Study	12				15				24				30			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Organ	Findings		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Body cavities]																		
mediastinum			<12>				<15>				<24>				<30>			
	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 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
adipose			<12>				<15>				<24>				<30>			
	hemorrhage		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 )	( 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 J 3

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

STUDY NO. : 0279  
 ANIMAL : MOUSE G-j:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Integumentary system/appandage]																	
skin/app		<38>				<35>				<26>				<20>			
	ulcer	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 )	( 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 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	epidermal cyst	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
subcutis		<38>				<35>				<26>				<20>			
	xanthogranuloma	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Respiratory system]																	
nasal cavit		<38>				<35>				<26>				<20>			
	mineralization	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 )	( 0 )	( 0 )	( 0 )	( 0 )
	eosinophilic change:olfactory epithelium	19	0	0	0	7	1	0	0 *	4	0	0	0 *	1	0	0	0 **
		( 50 )	( 0 )	( 0 )	( 0 )	( 20 )	( 3 )	( 0 )	( 0 )	( 15 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
nasal cavity		<38>				<35>				<26>				<20>			
	eosinophilic change:respiratory epithelium	10	0	0	0	6	1	0	0	7	0	0	0	3	0	0	0
		( 26 )	( 0 )	( 0 )	( 0 )	( 17 )	( 3 )	( 0 )	( 0 )	( 27 )	( 0 )	( 0 )	( 0 )	( 15 )	( 0 )	( 0 )	( 0 )
	respiratory metaplasia:olfactory epithelium	7	0	0	0	6	0	0	0	13	0	0	0 *	9	0	0	0
		( 18 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 0 )	( 0 )	( 50 )	( 0 )	( 0 )	( 0 )	( 45 )	( 0 )	( 0 )	( 0 )
	respiratory metaplasia:gland	3	0	0	0	4	0	0	0	6	0	0	0	5	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 11 )	( 0 )	( 0 )	( 0 )	( 23 )	( 0 )	( 0 )	( 0 )	( 25 )	( 0 )	( 0 )	( 0 )
larynx		<38>				<35>				<26>				<20>			
	eosinophilic change	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 )
trachea		<38>				<35>				<26>				<20>			
	eosinophilic change	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 )
lung		<38>				<35>				<26>				<20>			
	hemorrhage	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	thrombus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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. : 0279  
ANIMAL : MOUSE Grj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 3

		Group Name No. of Animals on Study Grade	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
Organ	Findings		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Respiratory system]																		
Lung			<38>				<35>				<26>				<20>			
	granulation		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 )
	osseous metaplasia		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 )
	bronchiolar-alveolar cell hyperplasia		2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 20 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:terminal bronchiole		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 ) *	3 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:epithelium,alveolar duct		1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 30 )	0 ( 0 )	0 ( 0 )	0 ( 0 ) **	
[Hematopoietic system]																		
bone marrow			<38>				<35>				<26>				<20>			
	erythropoiesis:increased		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulopoiesis:increased		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 12 )	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. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
bone marrow	xanthogranuloma	<38>				<35>				<26>				<20>			
		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 )	( 5 )	( 0 )	( 0 )	( 0 )
lymph node	granulation	<38>				<35>				<26>				<20>			
		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 )	( 5 )	( 0 )	( 0 )	( 0 )
	lymphadenitis	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 )	( 0 )	( 0 )	( 0 )	( 0 )
spleen	deposit of melanin	<38>				<35>				<26>				<20>			
		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 )	( 0 )	( 0 )	( 0 )	( 0 )
	extramedullary hematopoiesis	7	3	1	0	3	5	3	0	6	5	0	0	2	4	1	0
		( 18 )	( 8 )	( 3 )	( 0 )	( 9 )	( 14 )	( 9 )	( 0 )	( 23 )	( 19 )	( 0 )	( 0 )	( 10 )	( 20 )	( 5 )	( 0 )
	hyperplasia:vascular	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 )
	follicular hyperplasia	3	0	0	0	4	0	0	0	2	0	0	0	1	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 11 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
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 Grade	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																		
heart	arteritis		<38>				<35>				<26>				<20>			
			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 )
artery/aort	arteritis		<38>				<35>				<26>				<20>			
			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 )
[Digestive system]																		
tooth	dysplasia		<38>				<35>				<26>				<20>			
			30	5	0	0	25	2	1	0	15	4	0	0	9	1	0	0 **
			( 79 )	( 13 )	( 0 )	( 0 )	( 71 )	( 6 )	( 3 )	( 0 )	( 58 )	( 15 )	( 0 )	( 0 )	( 45 )	( 5 )	( 0 )	( 0 )
tongue	arteritis		<38>				<35>				<26>				<20>			
			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 )
esophagus	granulation		<38>				<35>				<26>				<20>			
			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 )
stomach	ulcer:forestomach		<38>				<35>				<26>				<20>			
			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 )	( 5 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
ANIMAL : MOUSE Grj: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				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
stomach		<38>				<35>				<26>				<20>			
	erosion:glandular stomach	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 12)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:glandular stomach	7 ( 18)	20 ( 53)	9 ( 24)	0 ( 0)	4 ( 11)	19 ( 54)	7 ( 20)	0 ( 0)	2 ( 8)	18 ( 69)	6 ( 23)	0 ( 0)	12 ( 60)	7 ( 35)	0 ( 0)	0 ** ( 0)
small intes		<38>				<35>				<26>				<20>			
	erosion	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)
liver		<38>				<35>				<26>				<20>			
	angiectasis	2 ( 5)	1 ( 3)	1 ( 3)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 12)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	necrosis:focal	1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 8)	1 ( 4)	0 ( 0)	0 ( 0)	2 ( 10)	1 ( 5)	0 ( 0)	0 ( 0)
	fatty change	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 23)	1 ( 4)	0 ( 0)	0 ** ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	fatty change:central	2 ( 5)	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 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 7

Organ	Findings	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<38>				<35>				<26>				<20>			
	degeneration:central	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 15 )	1 ( 4 )	0 ( 0 )	0 * ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulation	27 ( 71 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	16 ( 46 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	12 ( 46 )	3 ( 12 )	1 ( 4 )	0 * ( 0 )	9 ( 45 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	metaplasia:limiting ridge	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	clear cell focus	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	acidophilic cell focus	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	4 ( 15 )	2 ( 8 )	0 ( 0 )	0 * ( 0 )	2 ( 10 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus	1 ( 3 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	6 ( 17 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	3 ( 15 )	2 ( 10 )	0 ( 0 )	0 ( 0 )
	vacuolated cell focus	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mixed cell focus	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 ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

		Group Name No. of Animals on Study Grade	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
Organ	Findings		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)
[Digestive system]																		
liver			<38>				<35>				<26>				<20>			
	bile duct hyperplasia		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	biliary cyst		1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	2 ( 10 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	vacuolic change:peripheral		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	11 ( 55 )	1 ( 5 )	0 ( 0 )	0 ** ( 0 )
pancreas			<38>				<35>				<26>				<20>			
	atrophy		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	fatty metamorphosis		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 )
	islet cell hyperplasia		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 )	0 ( 0 )
[Urinary system]																		
kidney			<38>				<35>				<26>				<20>			
	mast cell		1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 9

Organ	Findings	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney		<38>				<35>				<26>				<20>			
	infarct	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 )
	basophilic change	32	1	0	0	20	2	1	0	21	1	0	0	12	0	0	0
		( 84 )	( 3 )	( 0 )	( 0 )	( 57 )	( 6 )	( 3 )	( 0 )	( 81 )	( 4 )	( 0 )	( 0 )	( 60 )	( 0 )	( 0 )	( 0 )
	hyaline cast	1	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0
		( 3 )	( 0 )	( 0 )	( 0 )	( 6 )	( 3 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 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 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	lymphocytic infiltration	17	0	0	0	2	0	0	0 **	2	1	0	0 **	1	0	0	0 **
		( 45 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 8 )	( 4 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )
	inflammatory polyp	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 )	( 0 )	( 0 )	( 0 )	( 0 )
	vacuolization of proximal tubule	33	0	0	0	6	0	0	0 **	0	0	0	0 **	0	0	0	0 **
		( 87 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hydronephrosis	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0
		( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 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. : 0279  
 ANIMAL : MOUSE Grj: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 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney			<38>				<35>				<26>				<20>			
	retention cyst		4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 11)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	mineralization:papilla		8	0	0	0	4	0	0	0	0	0	0	0 *	1	0	0	0
			( 21)	( 0)	( 0)	( 0)	( 11)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)
	atypical tubule hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)
	eosinophilic droplet:proximal tubule		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)
urin bladd			<38>				<35>				<26>				<20>			
	lymphocytic infiltration		2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
			( 5)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 19)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
[Endocrine system]																		
pituitary			<38>				<35>				<26>				<20>			
	cyst		3	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0
			( 8)	( 0)	( 0)	( 0)	( 9)	( 0)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 11

Organ	Findings	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
pituitary		<38>				<35>				<26>				<20>			
	hyperplasia	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 9 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	Rathke pouch	4 ( 11 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
adrenal		<38>				<35>				<26>				<20>			
	spindle-cell hyperplasia	17 ( 45 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	17 ( 49 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	18 ( 69 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	9 ( 45 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:cortical cell	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:medulla	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	focal fatty change:cortex	8 ( 21 )	0 ( 0 )	0 ( 0 )	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		<38>				<35>				<26>				<20>			
	atrophy	15 ( 39 )	12 ( 32 )	11 ( 29 )	0 ( 0 )	8 ( 23 )	14 ( 40 )	14 ( 40 )	0 ( 0 )	0 ( 0 )	17 ( 65 )	9 ( 35 )	0 ** ( 0 )	0 ( 0 )	11 ( 55 )	9 ( 45 )	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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 12

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 35				2000 ppm 26				4000 ppm 20			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																	
testis		<38>				<35>				<26>				<20>			
	mineralization	17 ( 45)	6 ( 16)	6 ( 16)	0 ( 0)	9 ( 26)	20 ( 57)	5 ( 14)	0 ** ( 0)	6 ( 23)	15 ( 58)	4 ( 15)	0 ** ( 0)	3 ( 15)	12 ( 60)	5 ( 25)	0 ** ( 0)
	spermatogenic granuloma	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)
	xanthogranuloma	0 ( 0)	1 ( 3)	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)
epididymis		<38>				<35>				<26>				<20>			
	spermatogenic granuloma	3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	1 ( 5)	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)	1 ( 5)	1 ( 5)	0 ( 0)	0 ( 0)
prep/cli gl		<38>				<35>				<26>				<20>			
	duct ectasia	0 ( 0)	3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)
	inflammation	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)

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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 13

Organ	Findings	Group Name No. of Animals on Study Grade	Control 38				1000 ppm 35				2000 ppm 26				4000 ppm 20			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Nervous system]																		
brain	mineralization		<38>				<35>				<26>				<20>			
			26	1	0	0	20	0	0	0	18	2	0	0	6	0	0	0 *
			( 68)	( 3)	( 0)	( 0)	( 57)	( 0)	( 0)	( 0)	( 69)	( 8)	( 0)	( 0)	( 30)	( 0)	( 0)	( 0)
[Special sense organs/appandage]																		
eye	iritis		<38>				<35>				<26>				<20>			
			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)
	mineralization:cornea		4	1	0	0	6	0	0	0	4	0	0	0	3	0	0	0
			( 11)	( 3)	( 0)	( 0)	( 17)	( 0)	( 0)	( 0)	( 15)	( 0)	( 0)	( 0)	( 15)	( 0)	( 0)	( 0)
Harder gl	hyperplasia		<38>				<35>				<26>				<20>			
			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)	( 0)	( 0)	( 0)	( 0)
[Body cavities]																		
peritoneum	xanthogranuloma		<38>				<35>				<26>				<20>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)

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

APPENDIX J 4

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Grade				Control 24				1000 ppm 24				2000 ppm 32				4000 ppm 29			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
nasal cavit		<24>				<24>				<32>				<29>							
	thrombus	2 ( 8 )	0 ( 0 )	0 ( 0 )	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 )	0 ( 0 )	0 ( 0 )
	eosinophilic change:olfactory epithelium	10 ( 42 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	5 ( 21 )	4 ( 17 )	0 ( 0 )	0 ( 0 )	4 ( 13 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	eosinophilic change:respiratory epithelium	17 ( 71 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	12 ( 50 )	3 ( 13 )	2 ( 8 )	0 ( 0 )	17 ( 53 )	2 ( 6 )	1 ( 3 )	0 ( 0 )	7 ( 24 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	respiratory metaplasia:olfactory epithelium	11 ( 46 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	9 ( 38 )	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 )
	respiratory metaplasia:gland	7 ( 29 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	9 ( 38 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	12 ( 38 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	11 ( 38 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
nasopharynx		<24>				<24>				<32>				<29>							
	eosinophilic change	3 ( 13 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	7 ( 22 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
lung		<24>				<24>				<32>				<29>							
	hemorrhage	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	1 ( 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 13

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 24				2000 ppm 32				4000 ppm 29			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Respiratory system]

Lung		<24>				<24>				<32>				<29>			
	edema	0	0	0	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 )
	accumulation of foamy cells	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 )
	bronchiolar-alveolar cell hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
	hyperplasia:terminal bronchiole	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
	hyperplasia:epithelium,alveolar duct	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )

[Hematopoietic system]

bone marrow		<24>				<24>				<32>				<29>			
	granulopoiesis:increased	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
Lymph node		<24>				<24>				<32>				<29>			
	Lymphadenitis	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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. : 0279  
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				1000 ppm 24				2000 ppm 32				4000 ppm 29			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Hematopoietic system]

spleen	atrophy		<24>				<24>				<31>				<28>			
			0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
	deposit of melanin		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 )
	extramedullary hematopoiesis		3	3	8	0	2	3	3	4	2	5	14	2	0	10	9	1
			( 13 )	( 13 )	( 33 )	( 0 )	( 8 )	( 13 )	( 13 )	( 17 )	( 6 )	( 16 )	( 45 )	( 6 )	( 0 )	( 36 )	( 32 )	( 4 )
	erythropoiesis		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 )
	hyperplasia:vascular		0	0	0	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 )

[Circulatory system]

heart	thrombus		<24>				<24>				<32>				<29>			
			0	0	0	0	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 )
	mineralization		1	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
			( 4 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 15

		Group Name No. of Animals on Study Grade				Control 24				1000 ppm 24				2000 ppm 32				4000 ppm 29			
Organ	Findings	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)				
[Digestive system]																					
tooth	dysplasia	<24> 5 ( 21) ( 4) ( 0) ( 0)				<24> 1 ( 4) ( 4) ( 0) ( 0)				<32> 7 ( 22) ( 3) ( 0) ( 0)				<29> 14 ( 48) ( 7) ( 0) ( 0)							
stomach	ulcer:forestomach	<24> 0 ( 0) ( 0) ( 0) ( 0)				<24> 0 ( 0) ( 0) ( 0) ( 0)				<32> 1 ( 3) ( 0) ( 0) ( 0)				<29> 0 ( 0) ( 0) ( 0) ( 0)							
	hyperplasia:glandular stomach	<24> 12 ( 50) ( 29) ( 0) ( 0)				<24> 13 ( 54) ( 8) ( 0) ( 0)				<32> 18 ( 56) ( 16) ( 0) ( 0)				<29> 12 ( 41) ( 7) ( 0) ( 0) *							
small intes	hemorrhage	<24> 0 ( 0) ( 0) ( 4) ( 0)				<24> 0 ( 0) ( 0) ( 0) ( 0)				<32> 0 ( 0) ( 0) ( 0) ( 0)				<29> 0 ( 0) ( 0) ( 0) ( 0)							
liver	angiectasis	<24> 1 ( 4) ( 0) ( 0) ( 0)				<23> 1 ( 4) ( 0) ( 0) ( 0)				<32> 0 ( 0) ( 3) ( 3) ( 0)				<29> 4 ( 14) ( 3) ( 7) ( 0)							
	hemorrhage	<24> 0 ( 0) ( 4) ( 0) ( 0)				<23> 0 ( 0) ( 0) ( 0) ( 0)				<32> 0 ( 0) ( 0) ( 0) ( 0)				<29> 0 ( 0) ( 0) ( 0) ( 0)							
	necrosis:focal	<24> 2 ( 8) ( 4) ( 0) ( 0)				<23> 0 ( 0) ( 0) ( 0) ( 0)				<32> 2 ( 6) ( 0) ( 0) ( 0)				<29> 3 ( 10) ( 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 ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 16

		Group Name	Control				1000 ppm				2000 ppm				4000 ppm			
		No. of Animals on Study	24				24				32				29			
Organ	Findings	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
Liver			<24>				<23>				<32>				<29>			
	fatty change		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 9 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	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 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	granulation		1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	acidophilic cell focus		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	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 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	cholangiofibrosis		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	biliary cyst		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 )	0 ( 0 )
	vacuolic change:peripheral		0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	9 ( 31 )	1 ( 3 )	0 ( 0 )	0 * ( 0 )

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

STUDY NO. : 0279  
 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	Control				1000 ppm				2000 ppm				4000 ppm			
		No. of Animals on Study	24				24				32				29			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
pancreas	atrophy		<23>				<24>				<32>				<29>			
		1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 4 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Urinary system]																		
kidney	basophilic change		<24>				<24>				<32>				<29>			
		1	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 )
	hyaline cast		0	0	0	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 )
	lymphocytic infiltration		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammatory polyp		1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
			( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )
	hydronephrosis		0	1	1	0	2	0	1	0	1	0	0	0	0	0	1	0
			( 0 )	( 4 )	( 4 )	( 0 )	( 8 )	( 0 )	( 4 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )
	retention cyst		0	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 7 )	( 0 )	( 0 )	( 0 )
Grade 1 : Slight 2 : Moderate 3 : Marked 4 : Severe																		
< a > a : Number of animals examined at the site																		
b : Number of animals with lesion																		
( c ) c : b / a * 100																		
Significant difference ; * : P ≤ 0.05 ** : P ≤ 0.01 Test of Chi Square																		

STUDY NO. : 0279  
 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_____	Group Name	Control				1000 ppm				2000 ppm				4000 ppm			
		No. of Animals on Study	24				24				32				29			
		Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																		
kidney	mineralization:papilla		<24>				<24>				<32>				<29>			
			1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	eosinophilic droplet:proximal tubule		6 ( 25)	3 ( 13)	0 ( 0)	0 ( 0)	4 ( 17)	5 ( 21)	1 ( 4)	0 ( 0)	7 ( 22)	4 ( 13)	1 ( 3)	0 ( 0)	4 ( 14)	3 ( 10)	1 ( 3)	0 ( 0)
urin bladd	lymphocytic infiltration		<24>				<24>				<32>				<29>			
			0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
[Endocrine system]																		
pituitary	cyst		<24>				<24>				<32>				<29>			
			3 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia		1 ( 4)	0 ( 0)	0 ( 0)	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)
	Rathke pouch		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)

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. : 0279  
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	Control No. of Animals on Study Grade				1000 ppm 24				2000 ppm 32				4000 ppm 29			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																	
parathyroid	hyperplasia	<24>				<24>				<32>				<29>			
		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 )
adrenal	hemorrhage	<24>				<24>				<31>				<29>			
		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 )
	inflammatory 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 )
	extramedullary hematopoiesis	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 )
	spindle-cell hyperplasia	21	0	0	0	20	1	0	0	30	0	0	0	27	0	0	0
		( 88 )	( 0 )	( 0 )	( 0 )	( 83 )	( 4 )	( 0 )	( 0 )	( 97 )	( 0 )	( 0 )	( 0 )	( 93 )	( 0 )	( 0 )	( 0 )
	hyperplasia: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 )
	focal fatty change:cortex	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )

[Reproductive system]

ovary	atrophy	<24>				<24>				<31>				<29>			
		2	8	12	0	1	12	9	0	1	13	14	0	0	3	19	0 *
		( 8 )	( 33 )	( 50 )	( 0 )	( 4 )	( 50 )	( 38 )	( 0 )	( 3 )	( 42 )	( 45 )	( 0 )	( 0 )	( 10 )	( 66 )	( 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 20

		Group Name	Control				1000 ppm				2000 ppm				4000 ppm			
		No. of Animals on Study	24				24				32				29			
Organ_____	Findings_____	Grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
ovary	hemorrhage		<24>				<24>				<31>				<29>			
			0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	1
		( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 7 )	( 3 )
	cyst		<24>				<24>				<32>				<29>			
			0	0	0	0	1	0	0	0	3	0	0	0	3	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 0 )
uterus	cystic endometrial hyperplasia		<24>				<24>				<32>				<29>			
			10	2	0	0	8	1	0	0	11	1	0	0	10	0	0	0
		( 42 )	( 8 )	( 0 )	( 0 )	( 33 )	( 4 )	( 0 )	( 0 )	( 34 )	( 3 )	( 0 )	( 0 )	( 34 )	( 0 )	( 0 )	( 0 )	( 0 )
mammary gl	galactoceles		<24>				<24>				<32>				<29>			
			2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Nervous system]																		
brain	mineralization		<24>				<24>				<32>				<29>			
			3	0	0	0	4	0	0	0	5	0	0	0	0	0	0	0
		( 13 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
[Special sense organs/appandage]																		
eye	mineralization:cornea		<24>				<24>				<32>				<29>			
			4	0	0	0	4	0	0	0	3	0	0	0	5	0	0	0
		( 17 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 0 )	( 0 )	( 9 )	( 0 )	( 0 )	( 0 )	( 17 )	( 0 )	( 0 )	( 0 )	( 0 )

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



APPENDIX J 5

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

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
nasal cavit		<50>				<50>				<49>				<50>							
	thrombus	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	eosinophilic change:olfactory epithelium	23	3	0	0	15	5	0	0	5	0	0	0	2	1	0	0	2	1	0	0
		( 46 )	( 6 )	( 0 )	( 0 )	( 30 )	( 10 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 4 )	( 2 )	( 0 )	( 0 )	( 4 )	( 2 )	( 0 )	( 0 )
	eosinophilic change:respiratory epithelium	38	6	0	0	26	7	2	0 *	24	6	1	0 *	21	1	1	0	21	1	1	0
		( 76 )	( 12 )	( 0 )	( 0 )	( 52 )	( 14 )	( 4 )	( 0 )	( 49 )	( 12 )	( 2 )	( 0 )	( 42 )	( 2 )	( 2 )	( 0 )	( 42 )	( 2 )	( 2 )	( 0 )
	respiratory metaplasia:olfactory epithelium	22	0	0	0	30	0	0	0	4	0	0	0 **	4	0	0	0	4	0	0	0
		( 44 )	( 0 )	( 0 )	( 0 )	( 60 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )
	respiratory metaplasia:gland	18	0	0	0	20	0	0	0	19	0	0	0	19	0	0	0	19	0	0	0
		( 36 )	( 0 )	( 0 )	( 0 )	( 40 )	( 0 )	( 0 )	( 0 )	( 39 )	( 0 )	( 0 )	( 0 )	( 38 )	( 0 )	( 0 )	( 0 )	( 38 )	( 0 )	( 0 )	( 0 )
	atrophy:olfactory epithelium	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
nasopharynx		<50>				<50>				<49>				<50>							
	eosinophilic change	8	0	0	0	2	2	0	0	7	0	0	0	4	1	0	0	4	1	0	0
		( 16 )	( 0 )	( 0 )	( 0 )	( 4 )	( 4 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 8 )	( 2 )	( 0 )	( 0 )	( 8 )	( 2 )	( 0 )	( 0 )
trachea		<50>				<50>				<48>				<50>							
	eosinophilic change	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study Control Grade				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																	
lung		<50>				<50>				<49>				<50>			
	hemorrhage	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	2 ( 4)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	edema	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	perivascular inflammation	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	accumulation of foamy cells	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)
	bronchiolar-alveolar cell hyperplasia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:terminal bronchiole	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 18)	0 ( 0)	0 ( 0)	0 ** ( 0)
	hyperplasia:epithelium,alveolar duct	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)

[Hematopoietic system]

bone marrow		<50>				<50>				<49>				<50>			
	atrophy	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0279  
 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 Control 50 Grade				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
bone marrow	granulopoiesis:increased	<50>				<50>				<49>				<50>			
		2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
Lymph node	Lymphadenitis	<50>				<50>				<49>				<50>			
		2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	follicular 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 )
spleen	atrophy	<50>				<50>				<48>				<49>			
		0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	deposit of melanin	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 )
	fibrosis	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 )
	extramedullary hematopoiesis	9	4	10	1	8	3	3	5	8	6	15	2	12	12	10	1
		( 18 )	( 8 )	( 20 )	( 2 )	( 16 )	( 6 )	( 6 )	( 10 )	( 17 )	( 13 )	( 31 )	( 4 )	( 24 )	( 24 )	( 20 )	( 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. : 0279  
 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 Control 50 Grade				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
spleen		<50>				<50>				<48>				<49>			
	erythropoiesis	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	hyperplasia:vascular	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 )
	follicular hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
[Circulatory system]																	
heart		<50>				<50>				<49>				<50>			
	thrombus	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 )
	mineralization	1	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	inflammatory cell nest	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	mastcell hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )

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. : 0279  
 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 No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 49				4000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
tooth	dysplasia		<50>				<50>				<49>				<50>			
			8	3	0	0	9	4	0	0	12	1	0	0	29	3	0	0 **
			( 16 )	( 6 )	( 0 )	( 0 )	( 18 )	( 8 )	( 0 )	( 0 )	( 24 )	( 2 )	( 0 )	( 0 )	( 58 )	( 6 )	( 0 )	( 0 )
tongue	mastcell hyperplasia		<50>				<50>				<49>				<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 )
salivary gl	lymphocytic infiltration		<50>				<50>				<49>				<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 )
stomach	ulcer:forestomach		<50>				<50>				<49>				<50>			
			0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 4 )	( 2 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia:glandular stomach		<50>				<50>				<49>				<50>			
			20	25	0	0	25	13	0	0 *	22	16	0	0	23	11	0	0 **
			( 40 )	( 50 )	( 0 )	( 0 )	( 50 )	( 26 )	( 0 )	( 0 )	( 45 )	( 33 )	( 0 )	( 0 )	( 46 )	( 22 )	( 0 )	( 0 )
small intes	hemorrhage		<50>				<50>				<49>				<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 )
liver	angiectasis		<50>				<49>				<49>				<50>			
			2	1	0	0	2	1	0	0	3	2	1	0	6	2	2	0
			( 4 )	( 2 )	( 0 )	( 0 )	( 4 )	( 2 )	( 0 )	( 0 )	( 6 )	( 4 )	( 2 )	( 0 )	( 12 )	( 4 )	( 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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 22

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
liver		<50>				<49>				<49>				<50>			
	hemorrhage	1 ( 2)	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)
	necrosis:focal	3 ( 6)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	2 ( 4)	0 ( 0)	0 ( 0)
	fatty change	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	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)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	granulation	9 ( 18)	11 ( 22)	0 ( 0)	0 ( 0)	14 ( 29)	4 ( 8)	0 ( 0)	0 ( 0)	11 ( 22)	5 ( 10)	0 ( 0)	0 ( 0)	10 ( 20)	0 ( 0)	0 ( 0)	0 ** ( 0)
	clear cell focus	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)
	acidophilic cell focus	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	2 ( 4)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	basophilic cell focus	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	2 ( 4)	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
liver		<50>				<49>				<49>				<50>			
	bile duct hyperplasia	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 )
	cholangiofibrosis	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 )	( 2 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	biliary cyst	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 4 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	vacuolic change:peripheral	0	1	0	0	0	0	0	0	0	0	0	0	19	9	1	0 **
		( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 38 )	( 18 )	( 2 )	( 0 )
pancreas		<49>				<50>				<49>				<49>			
	atrophy	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
[Urinary system]																	
kidney		<50>				<50>				<49>				<50>			
	infarct	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 : Number of animals with lesion  
 ( c ) c : b / a \* 100  
 Significant difference ; \* : P ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 24

Organ	Findings	Control 50				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
kidney	basophilic change	<50>				<50>				<49>				<50>			
		3	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyaline cast	2	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )
	lymphocytic infiltration	0	0	0	0	8	0	0	0 **	8	0	0	0 **	6	0	0	0 *
		( 0 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 12 )	( 0 )	( 0 )	( 0 )
	inflammatory polyp	2	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	hydronephrosis	0	2	1	0	2	1	1	0	1	0	1	0	0	0	1	0
		( 0 )	( 4 )	( 2 )	( 0 )	( 4 )	( 2 )	( 2 )	( 0 )	( 2 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )
	retention cyst	0	0	0	0	6	0	0	0 *	3	0	0	0	3	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 12 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )
	mineralization:papilla	3	0	0	0	4	0	0	0	4	0	0	0	1	0	0	0
		( 6 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	eosinophilic droplet:proximal tubule	8	4	0	0	6	5	1	0	9	4	1	0	6	4	1	0
		( 16 )	( 8 )	( 0 )	( 0 )	( 12 )	( 10 )	( 2 )	( 0 )	( 18 )	( 8 )	( 2 )	( 0 )	( 12 )	( 8 )	( 2 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 25

Organ	Findings	Group Name No. of Animals on Study Control 50 Grade				1000 ppm 50				2000 ppm 49				4000 ppm 50			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Urinary system]																	
urin bladd		<50>				<50>				<49>				<50>			
	lymphocytic infiltration	7	0	0	0	8	0	0	0	2	0	0	0	7	0	0	0
		( 14 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )
[Endocrine system]																	
pituitary		<50>				<50>				<49>				<50>			
	cyst	9	0	0	0	5	0	0	0	2	0	0	0	4	0	0	0
		( 18 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )
	hyperplasia	8	0	0	0	10	0	0	0	7	0	0	0	4	0	0	0
		( 16 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )
	Rathke pouch	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
parathyroid		<50>				<50>				<49>				<50>			
	hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
adrenal		<50>				<50>				<48>				<50>			
	hemorrhage	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 49				4000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
adrenal																		
	fatty change		<50>				<50>				<48>				<50>			
			0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 2 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	inflammatory infiltration		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	extramedullary hematopoiesis		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 )
	spindle-cell hyperplasia		44	1	0	0	46	1	0	0	47	0	0	0	47	0	0	0
			( 88 )	( 2 )	( 0 )	( 0 )	( 92 )	( 2 )	( 0 )	( 0 )	( 98 )	( 0 )	( 0 )	( 0 )	( 94 )	( 0 )	( 0 )	( 0 )
	hyperplasia:cortical cell		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 )
	hyperplasia:medulla		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 )
	focal fatty change:cortex		1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )

[Reproductive system]

ovary																		
	atrophy		<50>				<50>				<48>				<50>			
			2	25	20	0	1	24	23	0	1	20	24	0	2	9	30	0 **
			( 4 )	( 50 )	( 40 )	( 0 )	( 2 )	( 48 )	( 46 )	( 0 )	( 2 )	( 42 )	( 50 )	( 0 )	( 4 )	( 18 )	( 60 )	( 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 27

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 49				4000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
ovary	hemorrhage		<50>				<50>				<48>				<50>			
			0	0	1	1	0	0	0	0	0	1	0	0	0	0	3	1
			( 0 )	( 0 )	( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 2 )
	cyst		8	0	0	0	7	0	0	0	6	0	0	0	4	0	0	0
			( 16 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 13 )	( 0 )	( 0 )	( 0 )	( 8 )	( 0 )	( 0 )	( 0 )
uterus	decidual change		<50>				<50>				<49>				<50>			
			1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	cystic endometrial hyperplasia		27	8	0	0	27	3	0	0	24	3	0	0	25	1	0	0 *
			( 54 )	( 16 )	( 0 )	( 0 )	( 54 )	( 6 )	( 0 )	( 0 )	( 49 )	( 6 )	( 0 )	( 0 )	( 50 )	( 2 )	( 0 )	( 0 )
mammary gl	galactocoele		<50>				<50>				<49>				<50>			
			5	0	0	0	5	0	0	0	3	0	0	0	1	0	0	0
			( 10 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
[Nervous system]																		
brain	mineralization		<50>				<50>				<49>				<50>			
			12	0	0	0	11	0	0	0	10	0	0	0	2	0	0	0 **
			( 24 )	( 0 )	( 0 )	( 0 )	( 22 )	( 0 )	( 0 )	( 0 )	( 20 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 28

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				1000 ppm 50				2000 ppm 49				4000 ppm 50			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appandage]																		
eye	mineralization:cornea		<50>				<50>				<49>				<50>			
			9	0	0	0	14	0	0	0	3	0	0	0	11	0	0	0
			( 18 )	( 0 )	( 0 )	( 0 )	( 28 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 22 )	( 0 )	( 0 )	( 0 )
Harder gl	degeneration		<50>				<50>				<49>				<50>			
			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

(HPT150)

BAIS3

APPENDIX J 6

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 14

Organ	Findings	Group Name No. of Animals on Study Grade				Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
nasal cavity		<26>				<26>				<17>				<21>							
	eosinophilic change:olfactory epithelium	13 ( 50)	3 ( 12)	0 ( 0)	0 ( 0)	10 ( 38)	1 ( 4)	0 ( 0)	0 ( 0)	1 ( 6)	0 ( 0)	0 ( 0)	0 ** ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ** ( 0)				
	eosinophilic change:respiratory epithelium	21 ( 81)	5 ( 19)	0 ( 0)	0 ( 0)	14 ( 54)	4 ( 15)	0 ( 0)	0 ** ( 0)	7 ( 41)	4 ( 24)	0 ( 0)	0 ** ( 0)	14 ( 67)	0 ( 0)	1 ( 5)	0 ** ( 0)				
	respiratory metaplasia:olfactory epithelium	11 ( 42)	0 ( 0)	0 ( 0)	0 ( 0)	21 ( 81)	0 ( 0)	0 ( 0)	0 * ( 0)	4 ( 24)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)				
	respiratory metaplasia:gland	11 ( 42)	0 ( 0)	0 ( 0)	0 ( 0)	11 ( 42)	0 ( 0)	0 ( 0)	0 ( 0)	7 ( 41)	0 ( 0)	0 ( 0)	0 ( 0)	8 ( 38)	0 ( 0)	0 ( 0)	0 ( 0)				
	atrophy:olfactory epithelium	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)				
nasopharynx		<26>				<26>				<17>				<21>							
	eosinophilic change	5 ( 19)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 14)	1 ( 5)	0 ( 0)	0 ( 0)				
trachea		<26>				<26>				<17>				<21>							
	eosinophilic change	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study Grade				Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																					
lung		<26>				<26>				<17>				<21>							
	hemorrhage	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	edema	0 ( 0 )	0 ( 0 )	0 ( 0 )	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 )	0 ( 0 )	0 ( 0 )
	perivascular inflammation	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 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	accumulation of foamy cells	0 ( 0 )	0 ( 0 )	0 ( 0 )	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 )	0 ( 0 )	0 ( 0 )
	bronchiolar-alveolar cell hyperplasia	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:terminal bronchiole	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	7 ( 33 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	hyperplasia:epithelium,alveolar duct	0 ( 0 )	0 ( 0 )	0 ( 0 )	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 ( 10 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

[Hematopoietic system]

bone marrow		<26>				<26>				<17>				<21>							
	atrophy	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	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



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Hematopoietic system]																	
bone marrow		<26>				<26>				<17>				<21>			
	granulopoiesis:increased	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)
Lymph node		<26>				<26>				<17>				<21>			
	lymphadenitis	2 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	follicular hyperplasia	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)
spleen		<26>				<26>				<17>				<21>			
	fibrosis	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)
	extramedullary hematopoiesis	6 ( 23)	1 ( 4)	2 ( 8)	1 ( 4)	6 ( 23)	0 ( 0)	0 ( 0)	1 ( 4)	6 ( 35)	1 ( 6)	1 ( 6)	0 ( 0)	12 ( 57)	2 ( 10)	1 ( 5)	0 ( 0)
	follicular hyperplasia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
[Circulatory system]																	
heart		<26>				<26>				<17>				<21>			
	inflammatory cell nest	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																		
heart	mastcell hyperplasia		<26>				<26>				<17>				<21>			
			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 )	( 5 )	( 0 )	( 0 )	( 0 )
[Digestive system]																		
tooth	dysplasia		<26>				<26>				<17>				<21>			
			3	2	0	0	8	3	0	0	5	0	0	0	15	1	0	0 **
			( 12 )	( 8 )	( 0 )	( 0 )	( 31 )	( 12 )	( 0 )	( 0 )	( 29 )	( 0 )	( 0 )	( 0 )	( 71 )	( 5 )	( 0 )	( 0 )
tongue	mastcell hyperplasia		<26>				<26>				<17>				<21>			
			0	0	0	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 )
salivary gl	lymphocytic infiltration		<26>				<26>				<17>				<21>			
			0	0	0	0	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 )
stomach	ulcer:forestomach		<26>				<26>				<17>				<21>			
			0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 8 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia:glandular stomach		8	18	0	0	12	11	0	0	4	11	0	0	11	9	0	0
			( 31 )	( 69 )	( 0 )	( 0 )	( 46 )	( 42 )	( 0 )	( 0 )	( 24 )	( 65 )	( 0 )	( 0 )	( 52 )	( 43 )	( 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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																	
Liver		<26>				<26>				<17>				<21>			
	angiectasis	1 ( 4 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	3 ( 18 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	2 ( 10 )	1 ( 5 )	0 ( 0 )	0 ( 0 )
	hemorrhage	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 )
	necrosis:focal	1 ( 4 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	fatty change	1 ( 4 )	0 ( 0 )	0 ( 0 )	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 )
	granulation	8 ( 31 )	11 ( 42 )	0 ( 0 )	0 ( 0 )	13 ( 50 )	4 ( 15 )	0 ( 0 )	0 ( 0 )	9 ( 53 )	5 ( 29 )	0 ( 0 )	0 ( 0 )	10 ( 48 )	0 ( 0 )	0 ( 0 )	0 ( 0 ) **
	clear cell focus	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	acidophilic cell focus	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	1 ( 5 )	0 ( 0 )	0 ( 0 )
	basophilic cell focus	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	2 ( 10 )	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 19

Organ	Findings	Group Name No. of Animals on Study Grade	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																		
liver			<26>				<26>				<17>				<21>			
	bile duct hyperplasia		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 )	( 5 )	( 0 )	( 0 )
	biliary cyst		2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )
	vacuolic change:peripheral		0	0	0	0	0	0	0	0	0	0	0	0	10	8	1	0 **
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 48 )	( 38 )	( 5 )	( 0 )
pancreas			<26>				<26>				<17>				<20>			
	atrophy		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )
[Urinary system]																		
kidney			<26>				<26>				<17>				<21>			
	infarct		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 )
	basophilic change		2	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0
			( 8 )	( 0 )	( 0 )	( 0 )	( 12 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 20

		Group Name No. of Animals on Study Grade	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21				
Organ_____	Findings_____		1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	1 (%)	2 (%)	3 (%)	4 (%)	
[Urinary system]																			
kidney			<26>				<26>				<17>				<21>				
	hyaline cast		2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 10 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
	lymphocytic infiltration		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	8 ( 31 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 35 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 29 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	inflammatory polyp		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 )	
	hydronephrosis		0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
	retention cyst		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
	mineralization:papilla		2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	4 ( 15 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
urin bladd	eosinophilic droplet:proximal tubule		2 ( 8 )	1 ( 4 )	0 ( 0 )	0 ( 0 )	2 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 10 )	1 ( 5 )	0 ( 0 )	0 ( 0 )	
	lymphocytic infiltration		7 ( 27 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 23 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 12 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	7 ( 33 )	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 21

Organ	Findings	Group Name No. of Animals on Study Grade	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Endocrine system]																		
pituitary	cyst		<26>				<26>				<17>				<21>			
			6	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0
			( 23)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)
	hyperplasia		7	0	0	0	9	0	0	0	7	0	0	0	4	0	0	0
			( 27)	( 0)	( 0)	( 0)	( 35)	( 0)	( 0)	( 0)	( 41)	( 0)	( 0)	( 0)	( 19)	( 0)	( 0)	( 0)
	Rathke pouch		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)
adrenal	fatty change		<26>				<26>				<17>				<21>			
			0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 4)	( 0)	( 6)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	spindle-cell hyperplasia		23	1	0	0	26	0	0	0	17	0	0	0	20	0	0	0
			( 88)	( 4)	( 0)	( 0)	( 100)	( 0)	( 0)	( 0)	( 100)	( 0)	( 0)	( 0)	( 95)	( 0)	( 0)	( 0)
	hyperplasia:cortical cell		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)
	hyperplasia: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)
[Reproductive system]																		
ovary	atrophy		<26>				<26>				<17>				<21>			
			0	17	8	0	0	12	14	0	0	7	10	0	2	6	11	0
			( 0)	( 65)	( 31)	( 0)	( 0)	( 46)	( 54)	( 0)	( 0)	( 41)	( 59)	( 0)	( 10)	( 29)	( 52)	( 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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Control No. of Animals on Study Grade				1000 ppm 26				2000 ppm 17				4000 ppm 21			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																	
ovary		<26>				<26>				<17>				<21>			
	hemorrhage	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
		( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )
		<26>				<26>				<17>				<21>			
	cyst	8	0	0	0	6	0	0	0	3	0	0	0	1	0	0	0
		( 31 )	( 0 )	( 0 )	( 0 )	( 23 )	( 0 )	( 0 )	( 0 )	( 18 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )
uterus		<26>				<26>				<17>				<21>			
	decidual change	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 4 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
		<26>				<26>				<17>				<21>			
	cystic endometrial hyperplasia	17	6	0	0	19	2	0	0	13	2	0	0	15	1	0	0
		( 65 )	( 23 )	( 0 )	( 0 )	( 73 )	( 8 )	( 0 )	( 0 )	( 76 )	( 12 )	( 0 )	( 0 )	( 71 )	( 5 )	( 0 )	( 0 )
mammary gl		<26>				<26>				<17>				<21>			
	galactoceles	3	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0
		( 12 )	( 0 )	( 0 )	( 0 )	( 12 )	( 0 )	( 0 )	( 0 )	( 12 )	( 0 )	( 0 )	( 0 )	( 5 )	( 0 )	( 0 )	( 0 )
[Nervous system]																	
brain		<26>				<26>				<17>				<21>			
	mineralization	9	0	0	0	7	0	0	0	5	0	0	0	2	0	0	0
		( 35 )	( 0 )	( 0 )	( 0 )	( 27 )	( 0 )	( 0 )	( 0 )	( 29 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name No. of Animals on Study Grade	Control 26				1000 ppm 26				2000 ppm 17				4000 ppm 21			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appandage]																		
eye	mineralization:cornea		<26>				<26>				<17>				<21>			
			5	0	0	0	10	0	0	0	0	0	0	0	6	0	0	0
			( 19 )	( 0 )	( 0 )	( 0 )	( 38 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 29 )	( 0 )	( 0 )	( 0 )
Harder gl	degeneration		<26>				<26>				<17>				<21>			
			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 )
	hyperplasia		0	0	0	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 )

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 K 1

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

STUDY NO. : 0279  
 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	1000 ppm	2000 ppm	4000 ppm
0 - 52	NO. OF EXAMINED ANIMALS		1	0	1	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		2	3	2	6
	NO. OF ANIMALS WITH TUMORS		2	2	2	4
	NO. OF ANIMALS WITH SINGLE TUMORS		0	1	2	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	1	0	1
	NO. OF BENIGN TUMORS		1	1	0	2
	NO. OF MALIGNANT TUMORS		3	2	2	5
	NO. OF TOTAL TUMORS		4	3	2	7
79 - 104	NO. OF EXAMINED ANIMALS		9	12	21	22
	NO. OF ANIMALS WITH TUMORS		9	11	21	21
	NO. OF ANIMALS WITH SINGLE TUMORS		7	6	14	4
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	5	7	17
	NO. OF BENIGN TUMORS		3	5	7	17
	NO. OF MALIGNANT TUMORS		9	14	26	37
	NO. OF TOTAL TUMORS		12	19	33	54
105 - 105	NO. OF EXAMINED ANIMALS		38	35	26	20
	NO. OF ANIMALS WITH TUMORS		29	27	26	20
	NO. OF ANIMALS WITH SINGLE TUMORS		17	15	7	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		12	12	19	17
	NO. OF BENIGN TUMORS		21	16	23	22
	NO. OF MALIGNANT TUMORS		25	30	37	34
	NO. OF TOTAL TUMORS		46	46	60	56

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
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	1000 ppm	2000 ppm	4000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	49
	NO. OF ANIMALS WITH TUMORS		40	40	49	45
	NO. OF ANIMALS WITH SINGLE TUMORS		24	22	23	10
	NO. OF ANIMALS WITH MULTIPLE TUMORS		16	18	26	35
	NO. OF BENIGN TUMORS		25	22	30	41
	NO. OF MALIGNANT TUMORS		37	46	65	76
	NO. OF TOTAL TUMORS		62	68	95	117

(HPT070)

BAIS3

APPENDIX K 2

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

STUDY NO. : 0279  
 ANIMAL : MOUSE C<sub>3</sub>H/BDF<sub>1</sub>  
 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	1000 ppm	2000 ppm	4000 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	2	0	0
	NO. OF ANIMALS WITH TUMORS		0	2	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	2	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	2	0	0
	NO. OF TOTAL TUMORS		0	2	0	0
53 - 78	NO. OF EXAMINED ANIMALS		9	4	12	4
	NO. OF ANIMALS WITH TUMORS		9	4	11	4
	NO. OF ANIMALS WITH SINGLE TUMORS		8	3	6	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	1	5	4
	NO. OF BENIGN TUMORS		1	0	4	1
	NO. OF MALIGNANT TUMORS		9	5	12	9
	NO. OF TOTAL TUMORS		10	5	16	10
79 - 104	NO. OF EXAMINED ANIMALS		15	18	20	25
	NO. OF ANIMALS WITH TUMORS		15	18	18	24
	NO. OF ANIMALS WITH SINGLE TUMORS		11	14	10	6
	NO. OF ANIMALS WITH MULTIPLE TUMORS		4	4	8	18
	NO. OF BENIGN TUMORS		5	7	8	17
	NO. OF MALIGNANT TUMORS		16	16	22	42
	NO. OF TOTAL TUMORS		21	23	30	59
105 - 105	NO. OF EXAMINED ANIMALS		26	26	17	21
	NO. OF ANIMALS WITH TUMORS		24	25	16	21
	NO. OF ANIMALS WITH SINGLE TUMORS		11	11	8	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		13	14	8	18
	NO. OF BENIGN TUMORS		18	23	9	28
	NO. OF MALIGNANT TUMORS		27	26	21	34
	NO. OF TOTAL TUMORS		45	49	30	62

STUDY NO. : 0279  
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	1000 ppm	2000 ppm	4000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	48	50
	NO. OF ANIMALS WITH TUMORS		48	49	45	49
	NO. OF ANIMALS WITH SINGLE TUMORS		30	30	24	9
	NO. OF ANIMALS WITH MULTIPLE TUMORS		18	19	21	40
	NO. OF BENIGN TUMORS		24	30	21	46
	NO. OF MALIGNANT TUMORS		52	49	55	85
	NO. OF TOTAL TUMORS		76	79	76	131

(HPT070)

BAIS3

APPENDIX L 1

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

STUDY NO. : 0279  
 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	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Integumentary system/appandage]						
skin/app			<50>	<50>	<50>	<50>
	squamous cell papilloma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
subcutis			<50>	<50>	<50>	<50>
	histiocytic sarcoma		1 ( 2%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
	hemangiosarcoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
[Respiratory system]						
nasal cavit			<50>	<50>	<50>	<50>
	hemangioma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	ganglioneuroma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		7 ( 14%)	3 ( 6%)	4 ( 8%)	14 ( 28%)
	bronchiolar-alveolar carcinoma		1 ( 2%)	14 ( 28%)	22 ( 44%)	39 ( 78%)
[Hematopoietic system]						
lymph node			<50>	<50>	<50>	<50>
	malignant lymphoma		14 ( 28%)	13 ( 26%)	16 ( 32%)	9 ( 18%)
	mastcytoma:malignant		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
spleen			<50>	<50>	<50>	<50>
	hemangioma		1 ( 2%)	0 ( 0%)	2 ( 4%)	1 ( 2%)
	malignant lymphoma		2 ( 4%)	1 ( 2%)	5 ( 10%)	2 ( 4%)

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



STUDY NO. : 0279  
 ANIMAL : MOUSE Crl: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	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Hematopoietic system]						
spleen	mastocytoma:malignant		<50> 2 ( 4%)	<50> 4 ( 8%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	hemangiosarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
[Circulatory system]						
heart	hemangiosarcoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
[Digestive system]						
tooth	hemangioma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
esophagus	squamous cell papilloma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 0 ( 0%)
stomach	neuroendocrine cell tumor:malignant		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	mastocytoma:malignant		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
liver	hemangioma		<50> 0 ( 0%)	<50> 4 ( 8%)	<50> 3 ( 6%)	<50> 5 ( 10%)
	hepatocellular adenoma		10 ( 20%)	13 ( 26%)	14 ( 28%)	16 ( 32%)
	histiocytic sarcoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
	hemangiosarcoma		1 ( 2%)	0 ( 0%)	1 ( 2%)	1 ( 2%)

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

STUDY NO. : 0279  
 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	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Digestive system]						
Liver	hepatocellular carcinoma		<50> 10 ( 20%)	<50> 9 ( 18%)	<50> 14 ( 28%)	<50> 20 ( 40%)
	hepatoblastoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
[Urinary system]						
kidney	hemangioma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	mastcytoma:malignant		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
	renal cell carcinoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
urin bladd	histiocytic sarcoma		<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 0 ( 0%)
[Endocrine system]						
pituitary	adenoma		<49> 0 ( 0%)	<50> 0 ( 0%)	<50> 2 ( 4%)	<50> 0 ( 0%)
adrenal	pheochromocytoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 3 ( 6%)
	cortical adenoma		2 ( 4%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
[Reproductive system]						
epididymis	histiocytic sarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 2 ( 4%)	<50> 0 ( 0%)

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

(HPT085)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name No. of animals on Study	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Nervous system]						
brain	malignant reticulosis		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
periph nerv	schwannoma:malignant		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
[Special sense organs/appandage]						
Harder gl	adenoma		<50> 2 ( 4%)	<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 1 ( 2%)
[Musculoskeletal system]						
muscle	hemangiosarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 2 ( 4%)	<50> 0 ( 0%)
[Body cavities]						
peritoneum	hemangioma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	histiocytic sarcoma		<50> 2 ( 4%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
retroperit	schwannoma:malignant		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)

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

(IPT085)

BAIS3

APPENDIX L 2

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

STUDY NO. : 0279  
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	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Integumentary system/appandage]						
subcutis	lipoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<49> 0 ( 0%)	<50> 0 ( 0%)
	hemangioma		2 ( 4%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
	fibrosarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	leiomyosarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	sarcoma:NOS		0 ( 0%)	0 ( 0%)	1 ( 2%)	1 ( 2%)
	hemangiosarcoma		1 ( 2%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
[Respiratory system]						
Lung	bronchiolar-alveolar adenoma		<50> 2 ( 4%)	<50> 4 ( 8%)	<49> 5 ( 10%)	<50> 12 ( 24%)
	adenosquamous carcinoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	bronchiolar-alveolar carcinoma		3 ( 6%)	1 ( 2%)	8 ( 16%)	20 ( 40%)
[Hematopoietic system]						
Lymph node	malignant lymphoma		<50> 23 ( 46%)	<50> 31 ( 62%)	<49> 19 ( 39%)	<50> 15 ( 30%)
	mastcytoma:malignant		0 ( 0%)	1 ( 2%)	0 ( 0%)	1 ( 2%)

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

STUDY NO. : 0279  
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	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Hematopoietic system]						
spleen	hemangioma		<50> 0 ( 0%)	<50> 0 ( 0%)	<48> 1 ( 2%)	<49> 0 ( 0%)
	malignant lymphoma		2 ( 4%)	2 ( 4%)	2 ( 4%)	2 ( 4%)
	hemangiosarcoma		2 ( 4%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
[Circulatory system]						
heart	hemangiosarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 1 ( 2%)	<50> 0 ( 0%)
[Digestive system]						
stomach	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 1 ( 2%)	<50> 1 ( 2%)
large intes	histiocytic sarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 1 ( 2%)	<50> 0 ( 0%)
liver	hemangioma		<50> 2 ( 4%)	<49> 2 ( 4%)	<49> 0 ( 0%)	<50> 5 ( 10%)
	hepatocellular adenoma		1 ( 2%)	7 ( 14%)	4 ( 8%)	16 ( 32%)
	histiocytic sarcoma		0 ( 0%)	0 ( 0%)	2 ( 4%)	0 ( 0%)
	sarcoma:NOS		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	hemangiosarcoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	2 ( 4%)

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

(HPT085)

BAIS3

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name No. of animals on Study	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Digestive system]						
Liver	hepatocellular carcinoma		<50> 1 ( 2%)	<49> 1 ( 2%)	<49> 5 ( 10%)	<50> 19 ( 38%)
	pancreas					
	islet cell adenoma		<49> 1 ( 2%)	<50> 0 ( 0%)	<49> 0 ( 0%)	<49> 0 ( 0%)
[Urinary system]						
kidney	renal cell carcinoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 0 ( 0%)	<50> 1 ( 2%)
[Endocrine system]						
pituitary	adenoma		<50> 13 ( 26%)	<50> 9 ( 18%)	<49> 6 ( 12%)	<50> 6 ( 12%)
[Reproductive system]						
ovary	cystadenoma		<50> 0 ( 0%)	<50> 2 ( 4%)	<48> 1 ( 2%)	<50> 3 ( 6%)
	hemangioma		0 ( 0%)	2 ( 4%)	2 ( 4%)	1 ( 2%)
uterus	hemangioma		<50> 1 ( 2%)	<50> 0 ( 0%)	<49> 0 ( 0%)	<50> 0 ( 0%)
	endometrial stromal polyp		1 ( 2%)	0 ( 0%)	1 ( 2%)	1 ( 2%)
	histiocytic sarcoma		15 ( 30%)	10 ( 20%)	15 ( 31%)	13 ( 26%)
mammary gl	adenocarcinoma		<50> 2 ( 4%)	<50> 0 ( 0%)	<49> 1 ( 2%)	<50> 3 ( 6%)

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 8

Organ	Findings	Group Name No. of animals on Study	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Special sense organs/appandage]						
eye	melanoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<49> 0 ( 0%)	<50> 0 ( 0%)
Harder gl	adenoma		<50> 1 ( 2%)	<50> 2 ( 4%)	<49> 0 ( 0%)	<50> 1 ( 2%)
[Musculoskeletal system]						
muscle	leiomyosarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 0 ( 0%)	<50> 2 ( 4%)
vertebra	osteogenic sarcoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<49> 0 ( 0%)	<50> 0 ( 0%)
[Body cavities]						
pleura	schwannoma:malignant		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 0 ( 0%)	<50> 1 ( 2%)
peritoneum	fibrosarcoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<49> 0 ( 0%)	<50> 1 ( 2%)
	sarcoma:NOS		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
	hemangiosarcoma		1 ( 2%)	1 ( 2%)	0 ( 0%)	0 ( 0%)

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

(HPT085)

BAIS3



APPENDIX M 1

NEOPLASTIC LESIONS - INCIDENCE AND STATISTICAL ANALYSIS, MOUSE: MALE

( 2-YEAR STUDY )

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	7/50( 14.0)	3/50( 6.0)	4/50( 8.0)	14/50( 28.0)
Adjusted rates(b)	18.42	8.57	13.79	43.48
Terminal rates(c)	7/38( 18.4)	3/35( 8.6)	3/28( 11.5)	8/20( 40.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0006**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0131*			
Fisher Exact test(e)		P = 0.1590	P = 0.2624	P = 0.0699
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	14/50( 28.0)	22/50( 44.0)	39/50( 78.0)
Adjusted rates(b)	2.63	31.43	50.00	86.36
Terminal rates(c)	1/38( 2.6)	11/35( 31.4)	13/26( 50.0)	17/20( 85.0)
Statistical analysis				
Peto test				
Standard method(d)	P < 0.0001**			
Prevalence method(d)	P < 0.0001**?			
Combined analysis(d)	P < 0.0001**?			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.0002**	P < 0.0001**	P < 0.0001**
SITE : lung TUMOR : bronchiolar-alveolar adenoma,bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	8/50( 16.0)	17/50( 34.0)	26/50( 52.0)	42/50( 84.0)
Adjusted rates(b)	21.05	40.00	62.96	91.67
Terminal rates(c)	8/38( 21.1)	14/35( 40.0)	16/26( 61.5)	18/20( 90.0)
Statistical analysis				
Peto test				
Standard method(d)	P < 0.0001**			
Prevalence method(d)	P < 0.0001**?			
Combined analysis(d)	P < 0.0001**?			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.0318*	P = 0.0001**	P < 0.0001**

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	14/50( 28.0)	13/50( 26.0)	16/50( 32.0)	9/50( 18.0)
Adjusted rates(b)	26.32	20.00	42.31	15.00
Terminal rates(c)	10/38( 26.3)	7/35( 20.0)	11/26( 42.3)	3/20( 15.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3613			
Prevalence method(d)	P = 0.4604			
Combined analysis(d)	P = 0.3817			
Cochran-Armitage test(e)	P = 0.2757			
Fisher Exact test(e)		P = 0.4990	P = 0.4145	P = 0.1713
SITE : spleen TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	1/50( 2.0)	5/50( 10.0)	2/50( 4.0)
Adjusted rates(b)	5.26	2.86	15.38	5.00
Terminal rates(c)	2/38( 5.3)	1/35( 2.9)	4/26( 15.4)	1/20( 5.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0779			
Prevalence method(d)	P = 0.3100			
Combined analysis(d)	P = 0.1302			
Cochran-Armitage test(e)	P = 0.7421			
Fisher Exact test(e)		P = 0.5000	P = 0.2181	P = 0.3088
SITE : spleen TUMOR : mastcytoma:malignant				
Tumor rate				
Overall rates(a)	2/50( 4.0)	4/50( 8.0)	0/50( 0.0)	0/50( 0.0)
Adjusted rates(b)	5.26	10.00	0.0	0.0
Terminal rates(c)	2/38( 5.3)	3/35( 8.6)	0/26( 0.0)	0/20( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9495			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0685			
Fisher Exact test(e)		P = 0.3389	P = 0.2475	P = 0.2475

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	0/50( 0.0)	4/50( 8.0)	3/50( 6.0)	5/50( 10.0)
Adjusted rates(b)	0.0	8.57	11.54	10.00
Terminal rates(c)	0/38( 0.0)	3/35( 8.6)	3/26( 11.5)	2/20( 10.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1682			
Prevalence method(d)	P = 0.0182*			
Combined analysis(d)	P = 0.0105*			
Cochran-Armitage test(e)	P = 0.0700			
Fisher Exact test(e)		P = 0.0587	P = 0.1212	P = 0.0281*
SITE : liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	10/50( 20.0)	13/50( 26.0)	14/50( 28.0)	15/50( 30.0)
Adjusted rates(b)	21.74	30.56	37.93	50.00
Terminal rates(c)	8/38( 21.1)	10/35( 28.6)	9/26( 34.6)	10/20( 50.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.5790			
Prevalence method(d)	P = 0.0188*			
Combined analysis(d)	P = 0.0245*			
Cochran-Armitage test(e)	P = 0.2757			
Fisher Exact test(e)		P = 0.3182	P = 0.2419	P = 0.1783
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	10/50( 20.0)	9/50( 18.0)	14/50( 28.0)	20/50( 40.0)
Adjusted rates(b)	15.79	17.95	23.53	54.17
Terminal rates(c)	6/38( 15.8)	5/35( 14.3)	6/26( 23.1)	10/20( 50.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0103*			
Prevalence method(d)	P = 0.0044**			
Combined analysis(d)	P = 0.0002**			
Cochran-Armitage test(e)	P = 0.0086**			
Fisher Exact test(e)		P = 0.4994	P = 0.2419	P = 0.0243*

STUDY No. : 0279  
ANIMAL : MOUSE CrJ:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : liver TUMOR : hemangioma,hemangiosarcoma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	4/50( 8.0)	4/50( 8.0)	6/50( 12.0)
Adjusted rates(b)	2.63	8.57	15.38	10.26
Terminal rates(c)	1/38( 2.6)	3/35( 8.6)	4/26( 15.4)	2/20( 10.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0409*			
Prevalence method(d)	P = 0.0366*			
Combined analysis(d)	P = 0.0078**			
Cochran-Armitage test(e)	P = 0.0768			
Fisher Exact test(e)		P = 0.1811	P = 0.1811	P = 0.0559
SITE : liver TUMOR : hepatocellular adenoma,hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	15/50( 30.0)	20/50( 40.0)	25/50( 50.0)	29/50( 58.0)
Adjusted rates(b)	28.95	41.67	55.56	80.00
Terminal rates(c)	11/38( 28.9)	14/35( 40.0)	14/26( 53.8)	15/20( 75.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0166*			
Prevalence method(d)	P = 0.0002**			
Combined analysis(d)	P < 0.0001**			
Cochran-Armitage test(e)	P = 0.0036**			
Fisher Exact test(e)		P = 0.2013	P = 0.0328*	P = 0.0042**
SITE : liver TUMOR : hepatocellular carcinoma,hepatoblastoma				
Tumor rate				
Overall rates(a)	10/50( 20.0)	9/50( 18.0)	14/50( 28.0)	21/50( 42.0)
Adjusted rates(b)	15.79	17.95	23.53	58.33
Terminal rates(c)	6/38( 15.8)	5/35( 14.3)	6/26( 23.1)	11/20( 55.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0103*			
Prevalence method(d)	P = 0.0017**			
Combined analysis(d)	P = 0.0001**			
Cochran-Armitage test(e)	P = 0.0043**			
Fisher Exact test(e)		P = 0.4994	P = 0.2419	P = 0.0149*

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

# NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : liver TUMOR : hepatocellular adenoma, hepatocellular carcinoma, hepatoblastoma				
Tumor rate				
Overall rates(a)	15/50( 30.0)	20/50( 40.0)	25/50( 50.0)	29/50( 58.0)
Adjusted rates(b)	28.95	41.67	55.56	80.00
Terminal rates(c)	11/38( 28.9)	14/35( 40.0)	14/26( 53.8)	15/20( 75.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0166*			
Prevalence method(d)	P = 0.0002**			
Combined analysis(d)	P < 0.0001**			
Cochran-Armitage test(e)	P = 0.0036**			
Fisher Exact test(e)		P = 0.2013	P = 0.0328*	P = 0.0042**
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	0/50( 0.0)	1/50( 2.0)	3/50( 6.0)
Adjusted rates(b)	2.63	0.0	3.85	9.09
Terminal rates(c)	1/38( 2.6)	0/35( 0.0)	1/26( 3.8)	0/20( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0367*			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1079			
Fisher Exact test(e)		P = 0.4999	P = 0.2475	P = 0.3086

(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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : ALL SITE TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	5/50( 10.0)	6/50( 12.0)	7/50( 14.0)
Adjusted rates(b)	0.0	8.57	19.23	15.00
Terminal rates(c)	0/38( 0.0)	3/35( 8.6)	5/26( 19.2)	3/20( 15.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1825			
Prevalence method(d)	P = 0.0046**			
Combined analysis(d)	P = 0.0042**			
Cochran-Armitage test(e)	P = 0.0554			
Fisher Exact test(e)		P = 0.1022	P = 0.0559	P = 0.0297*
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	2/50( 4.0)	3/50( 6.0)	0/50( 0.0)
Adjusted rates(b)	7.89	0.0	2.56	0.0
Terminal rates(c)	3/38( 7.9)	0/35( 0.0)	0/26( 0.0)	0/20( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8588			
Prevalence method(d)	P = 0.9551			
Combined analysis(d)	P = 0.9735			
Cochran-Armitage test(e)	P = 0.0372*			
Fisher Exact test(e)		P = 0.2181	P = 0.3576	P = 0.0281*
SITE : ALL SITE TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	16/50( 32.0)	14/50( 28.0)	21/50( 42.0)	11/50( 22.0)
Adjusted rates(b)	31.58	22.86	57.69	20.00
Terminal rates(c)	12/38( 31.6)	8/35( 22.9)	15/26( 57.7)	4/20( 20.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2116			
Prevalence method(d)	P = 0.3685			
Combined analysis(d)	P = 0.2181			
Cochran-Armitage test(e)	P = 0.3796			
Fisher Exact test(e)		P = 0.4145	P = 0.2042	P = 0.1843

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : ALL SITE TUMOR : hemangiosarcoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	1/50( 2.0)	3/50( 6.0)	1/50( 2.0)
Adjusted rates(b)	2.63	2.86	3.85	0.0
Terminal rates(c)	1/38( 2.6)	1/35( 2.9)	1/26( 3.8)	0/20( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2511			
Prevalence method(d)	P = 0.6600			
Combined analysis(d)	P = 0.4118			
Cochran-Armitage test(e)	P = 0.7450			
Fisher Exact test(e)		P = 0.5000	P = 0.4999	P = 0.5000

(HPT360A)

BAISS

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



APPENDIX M 2

NEOPLASTIC LESIONS - INCIDENCE AND STATISTICAL ANALYSIS, MOUSE: FEMALE

( 2-YEAR STUDY )

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : subcutis TUMOR : hemangioma,hemangiosarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	1/50( 2.0)	0/49( 0.0)	0/50( 0.0)
Adjusted rates(b)	11.54	3.85	0.0	0.0
Terminal rates(c)	3/26( 11.5)	1/26( 3.8)	0/17( 0.0)	0/21( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.9817			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0411*			
Fisher Exact test(e)		P = 0.3086	P = 0.1250	P = 0.1212
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	4/50( 8.0)	5/49( 10.2)	12/50( 24.0)
Adjusted rates(b)	7.69	11.54	17.65	36.36
Terminal rates(c)	2/26( 7.7)	3/26( 11.5)	3/17( 17.6)	7/21( 33.3)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0005**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.0011**			
Fisher Exact test(e)		P = 0.3389	P = 0.2097	P = 0.0038**
SITE : lung TUMOR : bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	1/50( 2.0)	8/49( 16.3)	20/50( 40.0)
Adjusted rates(b)	3.85	3.85	35.29	39.13
Terminal rates(c)	1/26( 3.8)	1/26( 3.8)	6/17( 35.3)	7/21( 33.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0145*			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P < 0.0001**			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.3086	P = 0.0936	P < 0.0001**

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma,bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	5/50( 10.0)	12/49( 24.5)	30/50( 60.0)
Adjusted rates(b)	11.54	15.38	47.06	65.22
Terminal rates(c)	3/26( 11.5)	4/26( 15.4)	8/17( 47.1)	13/21( 61.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0145*			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P < 0.0001**?			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.3701	P = 0.0492*	P < 0.0001**
SITE : lung TUMOR : bronchiolar-alveolar carcinoma,adenosquamous carcinoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	1/50( 2.0)	8/49( 16.3)	21/50( 42.0)
Adjusted rates(b)	3.85	3.85	35.29	43.48
Terminal rates(c)	1/26( 3.8)	1/26( 3.8)	6/17( 35.3)	8/21( 38.1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0145*			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P < 0.0001**			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.3086	P = 0.0936	P < 0.0001**
SITE : lung TUMOR : bronchiolar-alveolar adenoma,bronchiolar-alveolar carcinoma,adenosquamous carcinoma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	5/50( 10.0)	12/49( 24.5)	30/50( 60.0)
Adjusted rates(b)	11.54	15.38	47.06	65.22
Terminal rates(c)	3/26( 11.5)	4/26( 15.4)	8/17( 47.1)	13/21( 61.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0145*			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P < 0.0001**?			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.3701	P = 0.0492*	P < 0.0001**

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : Lymph node TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	23/50( 46.0)	31/50( 62.0)	19/49( 38.8)	15/50( 30.0)
Adjusted rates(b)	48.15	69.23	47.06	34.78
Terminal rates(c)	12/26( 46.2)	18/26( 69.2)	8/17( 47.1)	7/21( 33.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.8474			
Prevalence method(d)	P = 0.8771			
Combined analysis(d)	P = 0.9387			
Cochran-Armitage test(e)	P = 0.0166*			
Fisher Exact test(e)		P = 0.0801	P = 0.3009	P = 0.0746
SITE : Liver TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	2/49( 4.1)	0/49( 0.0)	5/50( 10.0)
Adjusted rates(b)	5.41	7.69	0.0	19.05
Terminal rates(c)	1/26( 3.8)	2/26( 7.7)	0/17( 0.0)	4/21( 19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1288			
Prevalence method(d)	P = 0.1204			
Combined analysis(d)	P = 0.0557			
Cochran-Armitage test(e)	P = 0.1526			
Fisher Exact test(e)		P = 0.3164	P = 0.2525	P = 0.2181
SITE : Liver TUMOR : hepatocellular adenoma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	7/49( 14.3)	4/49( 8.2)	16/50( 32.0)
Adjusted rates(b)	3.85	22.22	16.00	45.71
Terminal rates(c)	1/26( 3.8)	5/26( 19.2)	1/17( 5.9)	9/21( 42.9)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.0277*	P = 0.1748	P < 0.0001**

STUDY No. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : liver TUMOR : hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	1/50( 2.0)	1/49( 2.0)	5/49( 10.2)	19/50( 38.0)
Adjusted rates(b)	3.85	3.85	17.65	46.15
Terminal rates(c)	1/26( 3.8)	1/26( 3.8)	3/17( 17.6)	9/21( 42.9)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0159*			
Prevalence method(d)	P < 0.0001**			
Combined analysis(d)	P < 0.0001**			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.2526	P = 0.0976	P < 0.0001**
SITE : liver TUMOR : hemangioma,hemangiosarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	2/49( 4.1)	0/49( 0.0)	7/50( 14.0)
Adjusted rates(b)	8.11	7.69	0.0	19.05
Terminal rates(c)	2/26( 7.7)	2/26( 7.7)	0/17( 0.0)	4/21( 19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0046**			
Prevalence method(d)	P = 0.2157			
Combined analysis(d)	P = 0.0239*			
Cochran-Armitage test(e)	P = 0.0721			
Fisher Exact test(e)		P = 0.4903	P = 0.1250	P = 0.1590
SITE : liver TUMOR : hepatocellular adenoma,hepatocellular carcinoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	8/49( 16.3)	9/49( 18.4)	30/50( 60.0)
Adjusted rates(b)	7.69	25.93	30.00	72.73
Terminal rates(c)	2/26( 7.7)	6/26( 23.1)	4/17( 23.5)	14/21( 66.7)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.0159*			
Prevalence method(d)	P < 0.0001**?			
Combined analysis(d)	P < 0.0001**?			
Cochran-Armitage test(e)	P < 0.0001**			
Fisher Exact test(e)		P = 0.0426*	P = 0.0235*	P < 0.0001**

STUDY No. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates(a)	13/50( 26.0)	9/50( 18.0)	6/49( 12.2)	6/50( 12.0)
Adjusted rates(b)	37.04	26.92	17.65	19.05
Terminal rates(c)	9/26( 34.6)	7/26( 26.9)	3/17( 17.6)	4/21( 19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.2522			
Prevalence method(d)	P = 0.9665			
Combined analysis(d)	P = 0.9310			
Cochran-Armitage test(e)	P = 0.0663			
Fisher Exact test(e)		P = 0.2352	P = 0.0685	P = 0.0624
SITE : ovary TUMOR : cystadenoma				
Tumor rate				
Overall rates(a)	0/50( 0.0)	2/50( 4.0)	1/48( 2.1)	3/50( 6.0)
Adjusted rates(b)	0.0	4.65	2.44	11.11
Terminal rates(c)	0/26( 0.0)	1/26( 3.8)	0/17( 0.0)	2/21( 9.5)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.0798			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.1240			
Fisher Exact test(e)		P = 0.2475	P = 0.4897	P = 0.1212
SITE : uterus TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	15/50( 30.0)	10/50( 20.0)	15/49( 30.6)	13/50( 26.0)
Adjusted rates(b)	23.08	7.69	11.76	19.05
Terminal rates(c)	6/26( 23.1)	2/26( 7.7)	2/17( 11.8)	4/21( 19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.4004			
Prevalence method(d)	P = 0.5221			
Combined analysis(d)	P = 0.4265			
Cochran-Armitage test(e)	P = 0.9411			
Fisher Exact test(e)		P = 0.1783	P = 0.4385	P = 0.4128

STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS--INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : mammary gland TUMOR : adenocarcinoma				
Tumor rate				
Overall rates(a)	2/50( 4.0)	0/50( 0.0)	1/49( 2.0)	3/50( 6.0)
Adjusted rates(b)	7.69	0.0	4.55	10.34
Terminal rates(c)	2/26( 7.7)	0/26( 0.0)	0/17( 0.0)	1/21( 4.8)
Statistical analysis				
Peto test				
Standard method(d)	P = -----			
Prevalence method(d)	P = 0.1551			
Combined analysis(d)	P = -----			
Cochran-Armitage test(e)	P = 0.3267			
Fisher Exact test(e)		P = 0.2475	P = 0.4924	P = 0.4999

(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. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : ALL SITE TUMOR : hemangioma				
Tumor rate				
Overall rates(a)	5/50( 10.0)	4/50( 8.0)	3/49( 6.1)	6/50( 12.0)
Adjusted rates(b)	13.51	13.79	5.88	23.81
Terminal rates(c)	3/26( 11.5)	3/26( 11.5)	1/17( 5.9)	5/21( 23.8)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1527			
Prevalence method(d)	P = 0.4055			
Combined analysis(d)	P = 0.2516			
Cochran-Armitage test(e)	P = 0.6741			
Fisher Exact test(e)		P = 0.4998	P = 0.3690	P = 0.4997
SITE : ALL SITE TUMOR : histiocytic sarcoma				
Tumor rate				
Overall rates(a)	15/50( 30.0)	10/50( 20.0)	18/49( 36.7)	13/50( 26.0)
Adjusted rates(b)	23.08	7.69	17.65	19.05
Terminal rates(c)	6/26( 23.1)	2/26( 7.7)	3/17( 17.6)	4/21( 19.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3860			
Prevalence method(d)	P = 0.4920			
Combined analysis(d)	P = 0.3995			
Cochran-Armitage test(e)	P = 0.9940			
Fisher Exact test(e)		P = 0.1783	P = 0.3101	P = 0.4128
SITE : ALL SITE TUMOR : malignant lymphoma				
Tumor rate				
Overall rates(a)	25/50( 50.0)	33/50( 66.0)	21/49( 42.9)	17/50( 34.0)
Adjusted rates(b)	55.56	76.92	52.94	34.78
Terminal rates(c)	14/26( 53.8)	20/26( 76.9)	9/17( 52.9)	7/21( 33.3)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.6794			
Prevalence method(d)	P = 0.9488			
Combined analysis(d)	P = 0.9208			
Cochran-Armitage test(e)	P = 0.0173*			
Fisher Exact test(e)		P = 0.0780	P = 0.3054	P = 0.0780

(HPT360A)

BAIS3



STUDY No. : 0279  
ANIMAL : MOUSE Crj:BDF1  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	1000 ppm	2000 ppm	4000 ppm
SITE : ALL SITE TUMOR : hemangiosarcoma				
Tumor rate				
Overall rates(a)	3/50( 6.0)	2/50( 4.0)	1/49( 2.0)	2/50( 4.0)
Adjusted rates(b)	7.69	7.69	3.85	0.0
Terminal rates(c)	2/26( 7.7)	2/26( 7.7)	0/17( 0.0)	0/21( 0.0)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.1326			
Prevalence method(d)	P = 0.9002			
Combined analysis(d)	P = 0.5918			
Cochran-Armitage test(e)	P = 0.6281			
Fisher Exact test(e)		P = 0.4999	P = 0.3163	P = 0.4999

(HPT360A)

BAIS3

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

APPENDIX N 1

HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS-TIME RELATED,  
MOUSE: MALE  
( 2-YEAR STUDY )

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

# HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 1

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Integumentary system/appandage]							
skin/app	squamous cell papilloma	0 - 50		0	0	0	0
		51 - 94		1	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
subcutis	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		0	1	0	0
		95 - 104		0	0	0	0
		105 - 105		1	0	0	0
	hemangiosarcoma	0 - 50		0	0	0	0
51 - 94			0	0	0	0	
95 - 104			0	0	0	0	
105 - 105			0	1	0	0	
[Respiratory system]							
nasal cavit	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	1
		105 - 105		0	0	0	0
	ganglioneuroma	0 - 50		0	0	0	0
51 - 94			0	0	0	0	
95 - 104			0	0	0	0	
105 - 105			0	0	1	0	
lung	bronchiolar-alveolar adenoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	2
		95 - 104		0	0	1	4
		105 - 105		7	3	3	8
	bronchiolar-alveolar carcinoma	0 - 50		0	0	0	0
51 - 94			0	1	4	9	
95 - 104			0	2	5	13	
105 - 105			1	11	13	17	

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

# HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 2

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50	
[Hematopoietic system]								
Lymph node	malignant lymphoma	0 - 50		0	0	0	0	
		51 - 94		2	2	3	4	
		95 - 104		2	4	2	2	
		105 - 105		10	7	11	3	
	mastcytoma:malignant	0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	0	1	0	
	spleen	hemangioma	0 - 50		0	0	0	0
			51 - 94		0	0	0	0
			95 - 104		1	0	1	0
			105 - 105		0	0	1	1
malignant lymphoma		0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	1	1	
		105 - 105		2	1	4	1	
mastcytoma:malignant		0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	1	0	0	
		105 - 105		2	3	0	0	
hemangiosarcoma	0 - 50		0	0	0	0		
	51 - 94		0	0	0	0		
	95 - 104		0	0	0	1		
	105 - 105		0	0	0	0		
[Circulatory system]								
heart	hemangiosarcoma	0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		1	0	0	0	
		105 - 105		0	0	0	0	

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 3

Organ	Findings	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Digestive system]							
tooth	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	1	0	0
		105 - 105		0	0	0	0
esophagus	squamous cell papilloma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		1	0	0	0
stomach	neuroendocrine cell tumor:malignant	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	1	0	0
	mastcytoma:malignant	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	1
liver	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	0	2
		95 - 104		0	1	0	1
		105 - 105		0	3	3	2
	hepatocellular adenoma	0 - 50		0	0	0	0
		51 - 94		1	1	2	1
		95 - 104		1	2	3	4
		105 - 105		8	10	9	10
	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		1	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
	hemangiosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	1
		105 - 105		1	0	1	0

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 4

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50	
[Digestive system]								
liver	hepatocellular carcinoma	0 - 50		0	0	0	0	
		51 - 94		2	1	5	2	
		95 - 104		2	3	3	8	
		105 - 105		6	5	6	10	
	hepatoblastoma	0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	0	0	1	
	[Urinary system]							
	kidney	hemangioma	0 - 50		0	0	0	0
			51 - 94		0	0	0	0
			95 - 104		0	0	0	0
105 - 105				0	0	1	0	
mastcytoma:malignant		0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	1	0	0	
renal cell carcinoma		0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	0	0	1	
urin bladd	histiocytic sarcoma	0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	1	1	0	
		105 - 105		1	0	0	0	
[Endocrine system]								
pituitary	adenoma	0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	0	2	0	

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 5

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Endocrine system]							
adrenal	pheochromocytoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	3
		105 - 105		1	0	1	0
	cortical adenoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		2	0	0	0
[Reproductive system]							
epididymis	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	2	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
[Nervous system]							
brain	malignant reticulosis	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	1	0
periph nerv	schwannoma:malignant	0 - 50		0	0	0	0
		51 - 94		1	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
[Special sense organs/appendage]							
Harder gl	adenoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	1	0	0
		105 - 105		2	0	1	1

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 6

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Musculoskeletal system]							
muscle	hemangiosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	1	0
		95 - 104		0	0	1	0
		105 - 105		0	0	0	0
[Body cavities]							
peritoneum	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	1	0
	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		1	0	0	0
		95 - 104		0	0	0	0
		105 - 105		1	0	0	0
retroperit	schwannoma:malignant	0 - 50		0	0	0	0
		51 - 94		0	0	0	1
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
(HPT100)							

BAIS3



APPENDIX N 2

HISTOLOGICAL FINDINGS NEOPLASTIC LESIONS-TIME RELATED,  
MOUSE:FEMALE  
( 2-YEAR STUDY )

STUDY NO. : 0279  
ANIMAL : MOUSE Grj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 7

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Integumentary system/appandage]							
subcutis	lipoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	1	0	0
	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		2	0	0	0
	fibrosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	1
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
	leiomyosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	1
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
	sarcoma:NOS	0 - 50		0	0	0	0
		51 - 94		0	0	1	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	1
	hemangiosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		1	1	0	0
[Respiratory system]							
lung	bronchiolar-alveolar adenoma	0 - 50		0	0	0	0
		51 - 94		0	1	2	4
		95 - 104		0	0	0	1
		105 - 105		2	3	3	7

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 8

Organ	Findings	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50	
[Respiratory system]								
lung	adenosquamous carcinoma	0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	0	0	1	
	bronchiolar-alveolar carcinoma	0 - 50		0	0	0	0	
		51 - 94		2	0	2	6	
		95 - 104		0	0	0	7	
		105 - 105		1	1	6	7	
[Hematopoietic system]								
lymph node	malignant lymphoma	0 - 50		0	1	0	0	
		51 - 94		6	10	10	5	
		95 - 104		5	2	1	3	
		105 - 105		12	18	8	7	
	mastcytoma:malignant	0 - 50		0	0	0	0	
		51 - 94		0	1	0	0	
		95 - 104		0	0	0	0	
		105 - 105		0	0	0	1	
	spleen	hemangioma	0 - 50		0	0	0	0
			51 - 94		0	0	0	0
			95 - 104		0	0	0	0
			105 - 105		0	0	1	0
malignant lymphoma		0 - 50		0	0	0	0	
		51 - 94		0	0	1	1	
		95 - 104		0	0	0	1	
		105 - 105		2	2	1	0	
hemangiosarcoma		0 - 50		0	0	0	0	
		51 - 94		0	0	0	0	
		95 - 104		1	0	0	0	
		105 - 105		1	0	0	0	
[Circulatory system]								
heart	hemangiosarcoma	0 - 50		0	0	0	0	

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 9

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Circulatory system]							
heart	hemangiosarcoma	51 - 94		0	0	1	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
[Digestive system]							
stomach	squamous cell papilloma	0 - 50		0	0	0	0
		51 - 94		0	0	1	0
		95 - 104		0	0	0	1
		105 - 105		0	0	0	0
large intes	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	1	0
liver	hemangioma	0 - 50		0	0	0	0
		51 - 94		1	0	0	0
		95 - 104		0	0	0	1
		105 - 105		1	2	0	4
	hepatocellular adenoma	0 - 50		0	0	0	0
		51 - 94		0	1	1	3
		95 - 104		0	1	2	4
		105 - 105		1	5	1	9
	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	2	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
	sarcoma:NOS	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	1

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 10

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Digestive system]							
liver	hemangiosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	1
		95 - 104		0	0	0	1
		105 - 105		1	0	0	0
	hepatocellular carcinoma	0 - 50		0	0	0	0
		51 - 94		0	0	1	4
		95 - 104		0	0	1	6
		105 - 105		1	1	3	9
pancreas	islet cell adenoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		1	0	0	0
[Urinary system]							
kidney	renal cell carcinoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	1
[Endocrine system]							
pituitary	adenoma	0 - 50		0	0	0	0
		51 - 94		1	1	3	2
		95 - 104		3	1	0	0
		105 - 105		9	7	3	4
[Reproductive system]							
ovary	cystadenoma	0 - 50		0	0	0	0
		51 - 94		0	1	1	0
		95 - 104		0	0	0	1
		105 - 105		0	1	0	2

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 11

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Reproductive system]							
ovary	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	2	0
		95 - 104		0	1	0	0
		105 - 105		0	1	0	1
uterus	hemangioma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		1	0	0	0
		105 - 105		0	0	0	0
	endometrial stromal polyp	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		1	0	1	1
	histiocytic sarcoma	0 - 50		0	0	0	0
		51 - 94		6	8	10	8
		95 - 104		3	0	3	1
		105 - 105		6	2	2	4
mammary gl	adenocarcinoma	0 - 50		0	0	0	0
		51 - 94		0	0	1	0
		95 - 104		0	0	0	2
		105 - 105		2	0	0	1
[Special sense organs/appendage]							
eye	melanoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	1	0	0
Harder gl	adenoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	1
		95 - 104		0	0	0	0
		105 - 105		1	2	0	0

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS - TIME RELATED

PAGE : 12

Organ_____	Findings_____	Time-related Weeks	Group Name No. of Animals	Control 50	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Musculoskeletal system]							
muscle	leiomyosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	1
		95 - 104		0	0	0	1
		105 - 105		0	0	0	0
vertebra	osteogenic sarcoma	0 - 50		0	0	0	0
		51 - 94		0	1	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
[Body cavities]							
pleura	schwannoma:malignant	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	1
		105 - 105		0	0	0	0
peritoneum	fibrosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	1
	sarcoma:NOS	0 - 50		0	0	0	0
		51 - 94		1	0	0	0
		95 - 104		0	0	0	0
		105 - 105		0	0	0	0
	hemangiosarcoma	0 - 50		0	0	0	0
		51 - 94		0	0	0	0
		95 - 104		1	0	0	0
		105 - 105		0	1	0	0

(HPT100)

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APPENDIX O 1

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



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Group Name No. of Animals on Study		Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
Organ	Findings				
[Integumentary system/appandage]					
skin/app	leukemic cell infiltration	<50> 0	<50> 0	<50> 2	<50> 1
subcutis	leukemic cell infiltration	<50> 0	<50> 1	<50> 2	<50> 0
[Respiratory system]					
nasal cavit	leukemic cell infiltration	<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:peripheral nerve tumor	1	0	0	0
larynx	leukemic cell infiltration	<50> 0	<50> 1	<50> 1	<48> 1
trachea	leukemic cell infiltration	<50> 0	<50> 2	<50> 0	<50> 0
lung	leukemic cell infiltration	<50> 8	<50> 6	<50> 12	<50> 5
	metastasis:liver tumor	2	2	5	5
	metastasis:peripheral nerve tumor	1	0	0	0
	metastasis:urinary bladder tumor	0	0	1	0
	metastasis:epididymis tumor	0	0	1	0
[Hematopoietic system]					
bone marrow	leukemic cell infiltration	<50> 2	<50> 6	<50> 4	<50> 2

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

STUDY NO. : 0279  
 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	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Hematopoietic system]						
bone marrow			<50>	<50>	<50>	<50>
	metastasis:liver tumor		1	0	0	0
	metastasis:peritoneum tumor		1	0	0	0
Lymph node			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	2	0
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:lung tumor		0	0	2	0
	metastasis:urinary bladder tumor		0	0	1	0
spleen			<50>	<50>	<50>	<50>
	leukemic cell infiltration		8	9	12	6
	metastasis:urinary bladder tumor		0	0	1	0
[Circulatory system]						
heart			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	2	1
	metastasis:lung tumor		0	0	2	4
[Digestive system]						
tongue			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	2	0
salivary gl			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	4	1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 50	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Digestive system]						
stomach	leukemic cell infiltration		<50> 0	<50> 1	<50> 3	<50> 1
	metastasis:lung tumor		0	0	1	0
small intes	leukemic cell infiltration		<50> 1	<50> 0	<50> 1	<50> 0
	metastasis:peritoneum tumor		2	0	0	0
large intes	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
liver	leukemic cell infiltration		<50> 3	<50> 6	<50> 5	<50> 2
	metastasis:peritoneum tumor		2	0	0	0
	metastasis:lung tumor		0	0	1	1
	metastasis:epididymis tumor		0	0	1	0
gall bladd	metastasis:peritoneum tumor		<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:lung tumor		0	1	0	0
pancreas	leukemic cell infiltration		<50> 1	<50> 2	<50> 7	<50> 2
	metastasis:peritoneum tumor		2	0	0	0
	metastasis:urinary bladder tumor		0	0	1	0
[Urinary system]						
kidney	leukemic cell infiltration		<50> 0	<50> 4	<50> 4	<50> 1

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

STUDY NO. : 0279  
 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	1000 ppm 50	2000 ppm 50	4000 ppm 50
[Urinary system]						
kidney			<50>	<50>	<50>	<50>
	metastasis:lung tumor		0	0	2	1
urin bladd			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	2	3	3
[Endocrine system]						
thyroid			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	1	1
adrenal			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	3	0	0
	metastasis:lung tumor		0	0	1	0
[Reproductive system]						
epididymis			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	2	2	3
	metastasis:peritoneum tumor		2	0	0	0
	metastasis:retroperitoneum tumor		0	0	0	1
semin ves			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	1	0
	metastasis:peritoneum tumor		1	0	0	0
prostate			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	1	3	1
	metastasis:peritoneum tumor		1	0	0	0

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Grj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 5

Group Name		Control	1000 ppm	2000 ppm	4000 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
[Special sense organs/appandage]					
eye	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 1
	metastasis:lung tumor	0	0	1	0
Harder gl	leukemic cell infiltration	<50> 0	<50> 1	<50> 3	<50> 0
[Musculoskeletal system]					
muscle	leukemic cell infiltration	<50> 1	<50> 1	<50> 2	<50> 1
	metastasis:lung tumor	0	0	1	2
[Body cavities]					
pleura	metastasis:lung tumor	<50> 0	<50> 0	<50> 1	<50> 4
< a > a : Number of animals examined at the site b b : Number of animals with lesion					

(JPT150)

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## APPENDIX O 2

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

STUDY NO. : 0279  
 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	1000 ppm	2000 ppm	4000 ppm
No. of Animals on Study		12	15	24	30
Organ	Findings				
[Integumentary system/appandage]					
skin/app		<12>	<15>	<24>	<30>
	leukemic cell infiltration	0	0	2	1
subcutis		<12>	<15>	<24>	<30>
	leukemic cell infiltration	0	1	2	0
[Respiratory system]					
nasal cavit		<12>	<15>	<24>	<30>
	leukemic cell infiltration	0	1	0	0
	metastasis:peripheral nerve tumor	1	0	0	0
larynx		<12>	<15>	<24>	<29>
	leukemic cell infiltration	0	1	1	1
trachea		<12>	<15>	<24>	<30>
	leukemic cell infiltration	0	1	0	0
lung		<12>	<15>	<24>	<30>
	leukemic cell infiltration	3	3	5	4
	metastasis:liver tumor	1	1	3	4
	metastasis:peripheral nerve tumor	1	0	0	0
	metastasis:urinary bladder tumor	0	0	1	0
	metastasis:epididymis tumor	0	0	1	0
[Hematopoietic system]					
bone marrow		<12>	<15>	<24>	<30>
	leukemic cell infiltration	1	4	3	1

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 12	1000 ppm 15	2000 ppm 24	4000 ppm 30
[Hematopoietic system]						
bone marrow			<12>	<15>	<24>	<30>
	metastasis:liver tumor		1	0	0	0
	metastasis:peritoneum tumor		1	0	0	0
Lymph node			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	0	1	0
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:lung tumor		0	0	2	0
	metastasis:urinary bladder tumor		0	0	1	0
spleen			<12>	<15>	<24>	<30>
	leukemic cell infiltration		2	4	4	5
	metastasis:urinary bladder tumor		0	0	1	0
[Circulatory system]						
heart			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	2	0
	metastasis:lung tumor		0	0	2	4
[Digestive system]						
tongue			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	2	0
salivary gl			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	2	0

< 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)

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study	Control 12	1000 ppm 15	2000 ppm 24	4000 ppm 30
[Digestive system]						
stomach			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	2	1
	metastasis:lung tumor		0	0	1	0
liver			<12>	<15>	<24>	<30>
	leukemic cell infiltration		1	3	4	2
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:lung tumor		0	0	1	1
	metastasis:epididymis tumor		0	0	1	0
pancreas			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	3	1
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:urinary bladder tumor		0	0	1	0
[Urinary system]						
kidney			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	3	3	1
	metastasis:lung tumor		0	0	2	1
urin bladd			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	1	1
[Endocrine system]						
thyroid			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	0	1	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)

Organ	Findings	Group Name No. of Animals on Study	Control 12	1000 ppm 15	2000 ppm 24	4000 ppm 30
[Endocrine system]						
adrenal			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	3	0	0
	metastasis:lung tumor		0	0	1	0
[Reproductive system]						
epididymis			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	2	2	1
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:retroperitoneum tumor		0	0	0	1
semin ves			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	1	0
prostate			<12>	<15>	<24>	<30>
	leukemic cell infiltration		1	1	2	1
[Special sense organs/appandage]						
eye			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	0	1	1
	metastasis:lung tumor		0	0	1	0
Harder gl			<12>	<15>	<24>	<30>
	leukemic cell infiltration		0	1	1	0
[Musculoskeletal system]						
muscle			<12>	<15>	<24>	<30>
	leukemic cell infiltration		1	1	2	1

< a >

a : Number of animals examined at the site

b

b : Number of animals with lesion

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 5

Group Name No. of Animals on Study		Control 12	1000 ppm 15	2000 ppm 24	4000 ppm 30
Organ	Findings				
[Musculoskeletal system]					
muscle	metastasis:lung tumor	<12> 0	<15> 0	<24> 1	<30> 2
[Body cavities]					
pleura	metastasis:lung tumor	<12> 0	<15> 0	<24> 1	<30> 4
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

(JPT150)

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## APPENDIX O 3

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Group Name		Control	1000 ppm	2000 ppm	4000 ppm
No. of Animals on Study		38	35	26	20
Organ	Findings				
[Respiratory system]					
trachea		<38>	<35>	<26>	<20>
	leukemic cell infiltration	0	1	0	0
lung		<38>	<35>	<26>	<20>
	leukemic cell infiltration	5	3	7	1
	metastasis:liver tumor	1	1	2	1
[Hematopoietic system]					
bone marrow		<38>	<35>	<26>	<20>
	leukemic cell infiltration	1	2	1	1
lymph node		<38>	<35>	<26>	<20>
	leukemic cell infiltration	0	0	1	0
spleen		<38>	<35>	<26>	<20>
	leukemic cell infiltration	6	5	8	1
[Circulatory system]					
heart		<38>	<35>	<26>	<20>
	leukemic cell infiltration	0	0	0	1
[Digestive system]					
salivary gl		<38>	<35>	<26>	<20>
	leukemic cell infiltration	1	0	2	1
stomach		<38>	<35>	<26>	<20>
	leukemic cell infiltration	0	0	1	0
small intes		<38>	<35>	<26>	<20>
	leukemic cell infiltration	1	0	1	0
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 38	1000 ppm 35	2000 ppm 26	4000 ppm 20
[Digestive system]						
small intes			<38>	<35>	<26>	<20>
	metastasis:peritoneum tumor		2	0	0	0
large intes			<38>	<35>	<26>	<20>
	leukemic cell infiltration		0	0	1	0
liver			<38>	<35>	<26>	<20>
	leukemic cell infiltration		2	3	1	0
	metastasis:peritoneum tumor		1	0	0	0
gall bladd			<38>	<35>	<26>	<20>
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:lung tumor		0	1	0	0
pancreas			<38>	<35>	<26>	<20>
	leukemic cell infiltration		1	1	4	1
	metastasis:peritoneum tumor		1	0	0	0
[Urinary system]						
kidney			<38>	<35>	<26>	<20>
	leukemic cell infiltration		0	1	1	0
urin bladd			<38>	<35>	<26>	<20>
	leukemic cell infiltration		1	1	2	2
[Reproductive system]						
epididymis			<38>	<35>	<26>	<20>
	leukemic cell infiltration		1	0	0	2

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

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 3

		Group Name	Control	1000 ppm	2000 ppm	4000 ppm
		No. of Animals on Study	38	35	26	20
Organ	Findings					
[Reproductive system]						
epididymis			<38>	<35>	<26>	<20>
	metastasis:peritoneum tumor		1	0	0	0
semin ves			<38>	<35>	<26>	<20>
	metastasis:peritoneum tumor		1	0	0	0
prostate			<38>	<35>	<26>	<20>
	leukemic cell infiltration		0	0	1	0
	metastasis:peritoneum tumor		1	0	0	0
[Special sense organs/appandage]						
Harder gl			<38>	<35>	<26>	<20>
	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 O 4

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



STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Group Name		Control	1000 ppm	2000 ppm	4000 ppm
No. of Animals on Study		50	50	49	50
Organ	Findings				
[Integumentary system/appandage]					
skin/app		<50>	<50>	<49>	<50>
	leukemic cell infiltration	0	0	1	0
subcutis		<50>	<50>	<49>	<50>
	leukemic cell infiltration	3	4	6	3
[Respiratory system]					
nasal cavit		<50>	<50>	<49>	<50>
	leukemic cell infiltration	0	0	1	0
	metastasis:uterus tumor	1	0	1	2
larynx		<50>	<50>	<49>	<50>
	leukemic cell infiltration	1	0	0	0
lung		<50>	<50>	<49>	<50>
	leukemic cell infiltration	17	20	15	12
	metastasis:liver tumor	0	1	4	5
	metastasis:uterus tumor	9	7	8	7
[Hematopoietic system]					
bone marrow		<50>	<50>	<49>	<50>
	leukemic cell infiltration	5	10	5	8
	metastasis:liver tumor	0	0	1	0
	metastasis:uterus tumor	2	1	5	4
lymph node		<50>	<50>	<49>	<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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Group Name		Control	1000 ppm	2000 ppm	4000 ppm
No. of Animals on Study		50	50	49	50
Organ	Findings				
[Hematopoietic system]					
Lymph node	metastasis:uterus tumor	<50> 4	<50> 1	<49> 0	<50> 0
	metastasis:lung tumor	2	0	0	0
spleen	leukemic cell infiltration	<50> 16	<50> 17	<49> 7	<50> 3
	metastasis:uterus tumor	4	2	0	1
[Circulatory system]					
heart	leukemic cell infiltration	<50> 6	<50> 5	<49> 4	<50> 2
	metastasis:uterus tumor	1	1	1	0
[Digestive system]					
tongue	leukemic cell infiltration	<50> 2	<50> 2	<49> 3	<50> 0
	metastasis:uterus tumor	0	0	1	0
salivary gl	leukemic cell infiltration	<50> 5	<50> 7	<49> 4	<50> 2
	metastasis:uterus tumor	0	0	1	0
stomach	leukemic cell infiltration	<50> 3	<50> 6	<49> 9	<50> 3
	metastasis:uterus tumor	1	0	1	2
small intes	leukemic cell infiltration	<50> 0	<50> 2	<49> 1	<50> 0

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

STUDY NO. : 0279  
 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	1000 ppm 50	2000 ppm 49	4000 ppm 50
[Digestive system]						
Large intes			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		0	0	1	0
Liver			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		11	14	2	6
	metastasis:uterus tumor		7	9	11	9
	metastasis:lung tumor		2	0	0	0
gall bladd			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		1	1	2	1
pancreas			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		1	6	4	3
	metastasis:uterus tumor		3	3	2	3
	metastasis:peritoneum tumor		0	0	0	1
[Urinary system]						
kidney			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		9	12	4	4
	metastasis:uterus tumor		9	3	7	7
	metastasis:lung tumor		1	0	0	0
urin bladd			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		8	16	10	8
	metastasis:uterus tumor		1	0	0	1
[Endocrine system]						
thyroid			<50>	<50>	<49>	<50>
	Leukemic cell infiltration		1	0	0	2

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

STUDY NO. : 0279  
 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	1000 ppm 50	2000 ppm 48	4000 ppm 50
[Endocrine system]						
adrenal	leukemic cell infiltration		<50> 5	<50> 3	<49> 0	<50> 1
	metastasis:uterus tumor		1	0	0	0
[Reproductive system]						
ovary	leukemic cell infiltration		<50> 7	<50> 11	<49> 10	<50> 8
	metastasis:uterus tumor		10	8	7	8
	metastasis:peritoneum tumor		1	0	0	0
	metastasis:lung tumor		1	0	0	1
uterus	leukemic cell infiltration		<50> 5	<50> 9	<49> 8	<50> 3
	metastasis:uterus tumor		0	1	2	1
vagina	leukemic cell infiltration		<50> 3	<50> 5	<49> 4	<50> 2
	metastasis:uterus tumor		0	1	2	1
mammary gl	leukemic cell infiltration		<50> 4	<50> 4	<49> 2	<50> 1
[Nervous system]						
brain	leukemic cell infiltration		<50> 2	<50> 2	<49> 0	<50> 0
	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. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 10

Group Name		Control	1000 ppm	2000 ppm	4000 ppm
No. of Animals on Study		50	50	49	50
Organ	Findings				
[Nervous system]					
brain		<50>	<50>	<49>	<50>
	metastasis:lung tumor	1	0	0	0
[Special sense organs/appandage]					
eye		<50>	<50>	<49>	<50>
	leukemic cell infiltration	2	0	0	0
	metastasis:lung tumor	1	0	0	0
Harder gl		<50>	<50>	<49>	<50>
	leukemic cell infiltration	2	0	2	0
	metastasis:lung tumor	1	0	0	0
[Musculoskeletal system]					
muscle		<50>	<50>	<49>	<50>
	leukemic cell infiltration	2	2	1	0
[Body cavities]					
pleura		<50>	<50>	<49>	<50>
	leukemic cell infiltration	0	0	1	1
	metastasis:lung tumor	0	0	1	0
mediastinum		<50>	<50>	<49>	<50>
	metastasis:lung tumor	0	0	1	0

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

## APPENDIX O 5

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study	Control 24	1000 ppm 24	2000 ppm 32	4000 ppm 29
[Integumentary system/appandage]						
skin/app	leukemic cell infiltration		<24> 0	<24> 0	<32> 1	<29> 0
subcutis	leukemic cell infiltration		<24> 3	<24> 4	<32> 4	<29> 3
[Respiratory system]						
nasal cavit	metastasis:uterus tumor		<24> 1	<24> 0	<32> 1	<29> 2
larynx	leukemic cell infiltration		<24> 1	<24> 0	<32> 0	<29> 0
lung	leukemic cell infiltration		<24> 7	<24> 11	<32> 7	<29> 7
	metastasis:liver tumor		0	0	3	5
	metastasis:uterus tumor		7	7	8	5
[Hematopoietic system]						
bone marrow	leukemic cell infiltration		<24> 2	<24> 5	<32> 1	<29> 5
	metastasis:liver tumor		0	0	1	0
	metastasis:uterus tumor		2	1	5	4
lymph node	metastasis:uterus tumor		<24> 3	<24> 1	<32> 0	<29> 0
	metastasis:lung tumor		2	0	0	0

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

STUDY NO. : 0279  
ANIMAL : MOUSE Crj:BDF1  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 7

Group Name No. of Animals on Study		Control 24	1000 ppm 24	2000 ppm 32	4000 ppm 29
Organ	Findings				
[Hematopoietic system]					
spleen	leukemic cell infiltration	<24> 9	<24> 8	<32> 4	<29> 2
	metastasis:uterus tumor	2	2	0	1
[Circulatory system]					
heart	leukemic cell infiltration	<24> 4	<24> 4	<32> 2	<29> 2
	metastasis:uterus tumor	0	1	1	0
[Digestive system]					
tongue	leukemic cell infiltration	<24> 2	<24> 1	<32> 3	<29> 0
	metastasis:uterus tumor	0	0	1	0
salivary gl	leukemic cell infiltration	<24> 2	<24> 3	<32> 2	<29> 1
	metastasis:uterus tumor	0	0	1	0
stomach	leukemic cell infiltration	<24> 3	<24> 6	<32> 4	<29> 1
	metastasis:uterus tumor	0	0	1	2
small intes	leukemic cell infiltration	<24> 0	<24> 1	<32> 1	<29> 0
	metastasis:uterus tumor	0	0	1	2
liver	leukemic cell infiltration	<24> 8	<24> 8	<32> 2	<29> 5
	metastasis:uterus tumor	6	8	11	8

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



STUDY NO. : 0279  
 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	1000 ppm 24	2000 ppm 32	4000 ppm 28
Organ	Findings				
[Digestive system]					
Liver		<24>	<24>	<32>	<28>
	metastasis:lung tumor	2	0	0	0
gall bladd		<24>	<24>	<32>	<28>
	leukemic cell infiltration	0	1	2	0
pancreas		<24>	<24>	<32>	<28>
	leukemic cell infiltration	1	5	4	2
	metastasis:uterus tumor	1	3	2	2
[Urinary system]					
kidney		<24>	<24>	<32>	<28>
	leukemic cell infiltration	5	9	3	3
	metastasis:uterus tumor	7	3	7	5
urin bladd		<24>	<24>	<32>	<28>
	leukemic cell infiltration	5	7	5	3
	metastasis:uterus tumor	1	0	0	1
[Endocrine system]					
thyroid		<24>	<24>	<32>	<28>
	leukemic cell infiltration	1	0	0	1
adrenal		<24>	<24>	<32>	<28>
	leukemic cell infiltration	4	3	0	1
	metastasis:uterus tumor	1	0	0	0

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

STUDY NO. : 0279  
 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 No. of Animals on Study		Control 24	1000 ppm 24	2000 ppm 32	4000 ppm 29
Organ	Findings				
[Reproductive system]					
ovary	leukemic cell infiltration	<24> 5	<24> 8	<32> 8	<29> 6
	metastasis:uterus tumor	7	8	6	6
	metastasis:peritoneum tumor	1	0	0	0
	metastasis:lung tumor	1	0	0	1
uterus	leukemic cell infiltration	<24> 5	<24> 8	<32> 5	<29> 2
	metastasis:uterus tumor	0	1	2	0
vagina	leukemic cell infiltration	<24> 3	<24> 5	<32> 3	<29> 1
	metastasis:uterus tumor	0	1	2	0
mammary gl	leukemic cell infiltration	<24> 1	<24> 3	<32> 2	<29> 1
	metastasis:uterus tumor	0	1	2	0
[Nervous system]					
brain	leukemic cell infiltration	<24> 2	<24> 1	<32> 0	<29> 0
	metastasis:lung tumor	1	0	0	0
[Special sense organs/appandage]					
eye	leukemic cell infiltration	<24> 2	<24> 0	<32> 0	<29> 0
	metastasis:lung tumor	1	0	0	0

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 10

Organ	Findings	Group Name No. of Animals on Study	Control 24	1000 ppm 24	2000 ppm 32	4000 ppm 29
[Special sense organs/appandage]						
Harder gl	leukemic cell infiltration		<24> 1	<24> 0	<32> 2	<29> 0
	metastasis:lung tumor		1	0	0	0
[Musculoskeletal system]						
muscle	leukemic cell infiltration		<24> 2	<24> 2	<32> 1	<29> 0
[Body cavities]						
pleura	leukemic cell infiltration		<24> 0	<24> 0	<32> 1	<29> 1
	metastasis:lung tumor		0	0	1	0
mediastinum	metastasis:lung tumor		<24> 0	<24> 0	<32> 1	<29> 0
< a > a : Number of animals examined at the site b : Number of animals with lesion						

(JPT150)

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APPENDIX O 6

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

STUDY NO. : 0279  
 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	1000 ppm 26	2000 ppm 17	4000 ppm 21
Organ	Findings				
[Integumentary system/appandage]					
subcutis	leukemic cell infiltration	<26> 0	<26> 0	<17> 2	<21> 0
[Respiratory system]					
nasal cavit	leukemic cell infiltration	<26> 0	<26> 0	<17> 1	<21> 0
lung	leukemic cell infiltration	<26> 10	<26> 9	<17> 8	<21> 5
	metastasis:liver tumor	0	1	1	0
	metastasis:uterus tumor	2	0	0	2
[Hematopoietic system]					
bone marrow	leukemic cell infiltration	<26> 3	<26> 5	<17> 4	<21> 3
lymph node	leukemic cell infiltration	<26> 1	<26> 0	<17> 0	<21> 0
	metastasis:uterus tumor	1	0	0	0
spleen	leukemic cell infiltration	<26> 7	<26> 9	<17> 3	<21> 1
	metastasis:uterus tumor	2	0	0	0
[Circulatory system]					
heart	leukemic cell infiltration	<26> 2	<26> 1	<17> 2	<21> 0

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

STUDY NO. : 0279  
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	1000 ppm 26	2000 ppm 17	4000 ppm 21
[Circulatory system]						
heart	metastasis:uterus tumor		<26> 1	<26> 0	<17> 0	<21> 0
[Digestive system]						
tongue	leukemic cell infiltration		<26> 0	<26> 1	<17> 0	<21> 0
salivary gl	leukemic cell infiltration		<26> 3	<26> 4	<17> 2	<21> 1
stomach	leukemic cell infiltration		<26> 0	<26> 0	<17> 5	<21> 2
	metastasis:uterus tumor		1	0	0	0
small intes	leukemic cell infiltration		<26> 0	<26> 1	<17> 0	<21> 0
large intes	leukemic cell infiltration		<26> 0	<26> 0	<17> 1	<21> 0
liver	leukemic cell infiltration		<26> 3	<26> 6	<17> 0	<21> 1
	metastasis:uterus tumor		1	1	0	1
gall bladd	leukemic cell infiltration		<26> 1	<26> 0	<17> 0	<21> 1
pancreas	leukemic cell infiltration		<26> 0	<26> 1	<17> 0	<20> 1
	metastasis:uterus tumor		2	0	0	1

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of Animals on Study	Control 26	1000 ppm 26	2000 ppm 17	4000 ppm 21
[Digestive system]						
pancreas	metastasis:peritoneum tumor		<26> 0	<26> 0	<17> 0	<20> 1
[Urinary system]						
kidney	leukemic cell infiltration		<26> 4	<26> 3	<17> 1	<21> 1
	metastasis:uterus tumor		2	0	0	2
urin bladd	leukemic cell infiltration		<26> 3	<26> 9	<17> 5	<21> 5
[Endocrine system]						
thyroid	leukemic cell infiltration		<26> 0	<26> 0	<17> 0	<21> 1
adrenal	leukemic cell infiltration		<26> 1	<26> 0	<17> 0	<21> 0
[Reproductive system]						
ovary	leukemic cell infiltration		<26> 2	<26> 3	<17> 2	<21> 2
	metastasis:uterus tumor		3	0	1	2
uterus	leukemic cell infiltration		<26> 0	<26> 1	<17> 3	<21> 1
vagina	leukemic cell infiltration		<26> 0	<26> 0	<17> 1	<21> 1

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

STUDY NO. : 0279  
 ANIMAL : MOUSE Crj:BDF1  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study	Control 26	1000 ppm 26	2000 ppm 17	4000 ppm 21
[Reproductive system]						
vagina	metastasis:uterus tumor		<26> 0	<26> 0	<17> 0	<21> 1
mammary gl	leukemic cell infiltration		<26> 3	<26> 1	<17> 0	<21> 0
[Nervous system]						
brain	leukemic cell infiltration		<26> 0	<26> 1	<17> 0	<21> 0
	metastasis:uterus tumor		0	0	0	1
[Special sense organs/appandage]						
Harder gl	leukemic cell infiltration		<26> 1	<26> 0	<17> 0	<21> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					
(JPT150)						

BAIS3



APPENDIX P 1

IDENTITY OF DICHLOROMETHANE IN THE 2-YEAR  
INHALATION STUDY

## IDENTITY OF DICHLOROMETHANE IN THE 2-YEAR INHALATION STUDY

Test Substance : Dichloromethane (Wako Pure Chemical Industries, LTD.)

A. Lot No. : APR5260

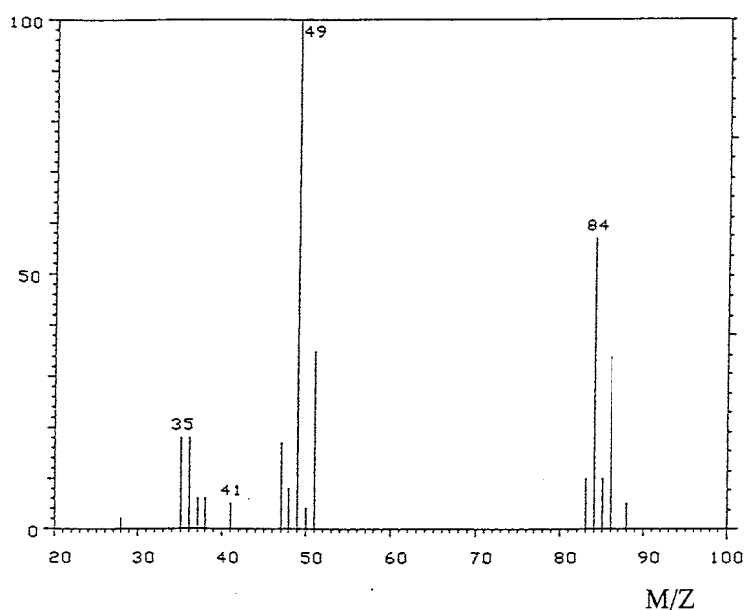
## 1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

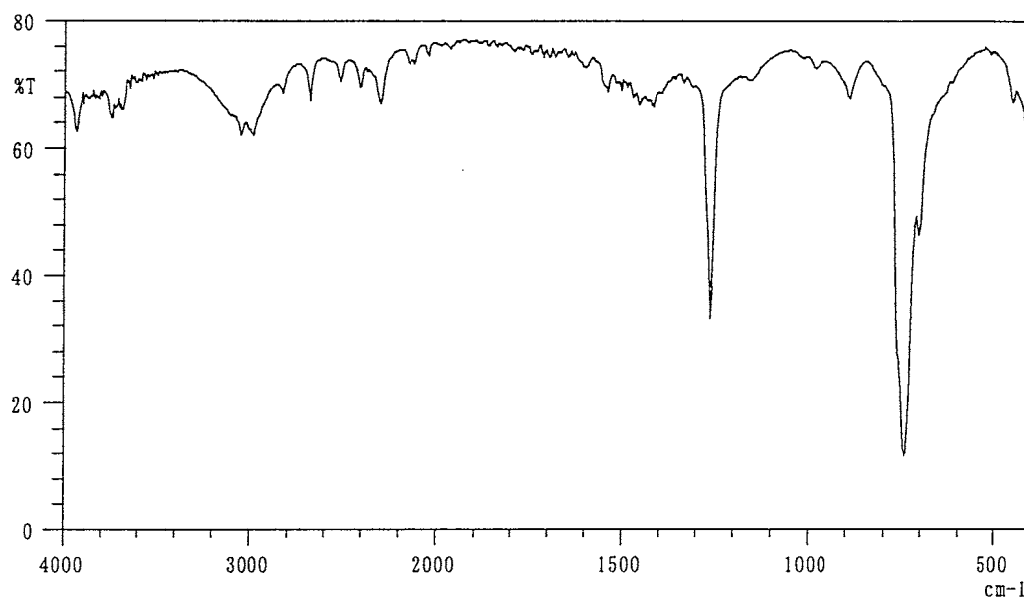
Determines	Literature Values*
Fragment Peak (M/Z)	Fragment Peak (M/Z)
35	35
49	49
84	84

\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values*</u>
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

B. Lot No. : KCH4634

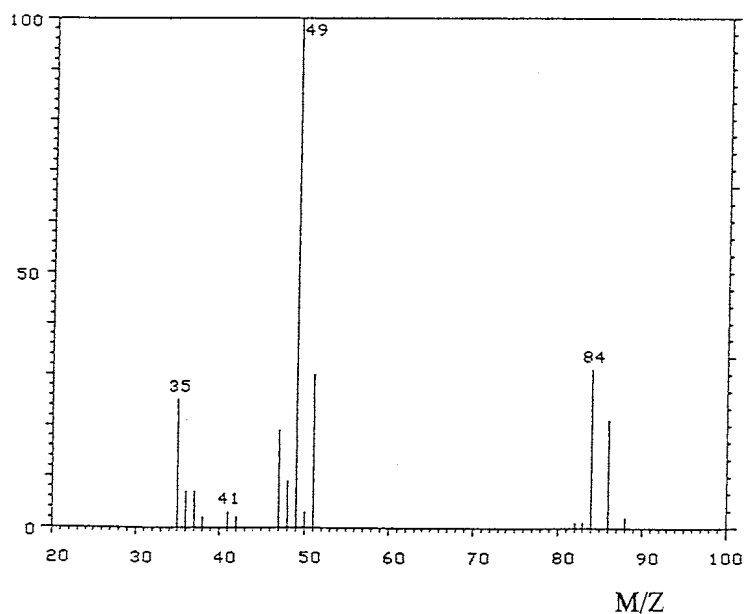
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

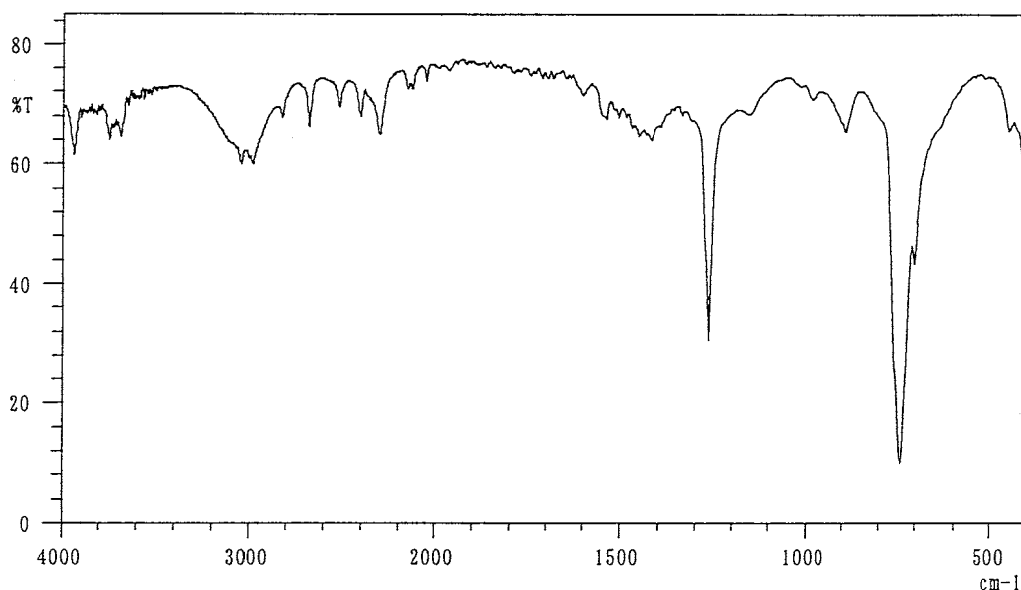
84

(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values*</u>
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

C. Lot No. : ESR7256

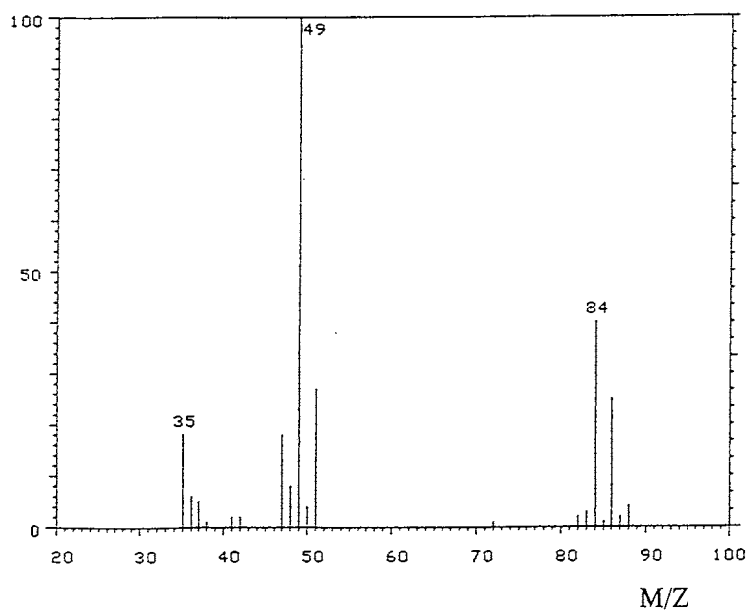
## 1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

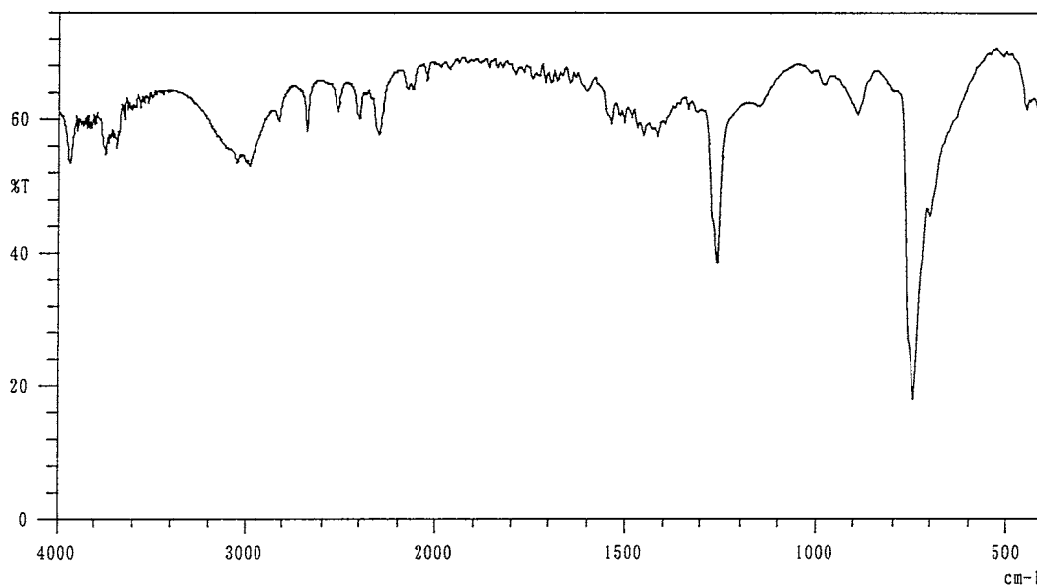
84

(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values*</u>
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

D. Lot No. : ESM2924

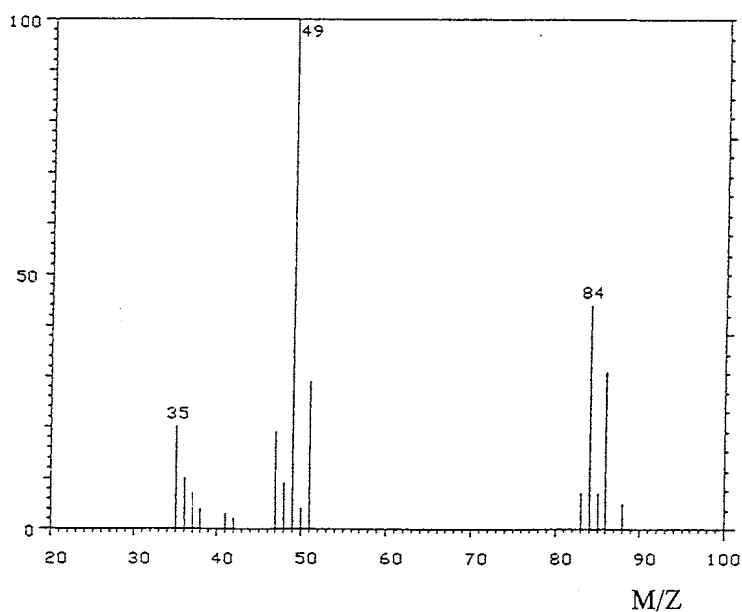
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

84

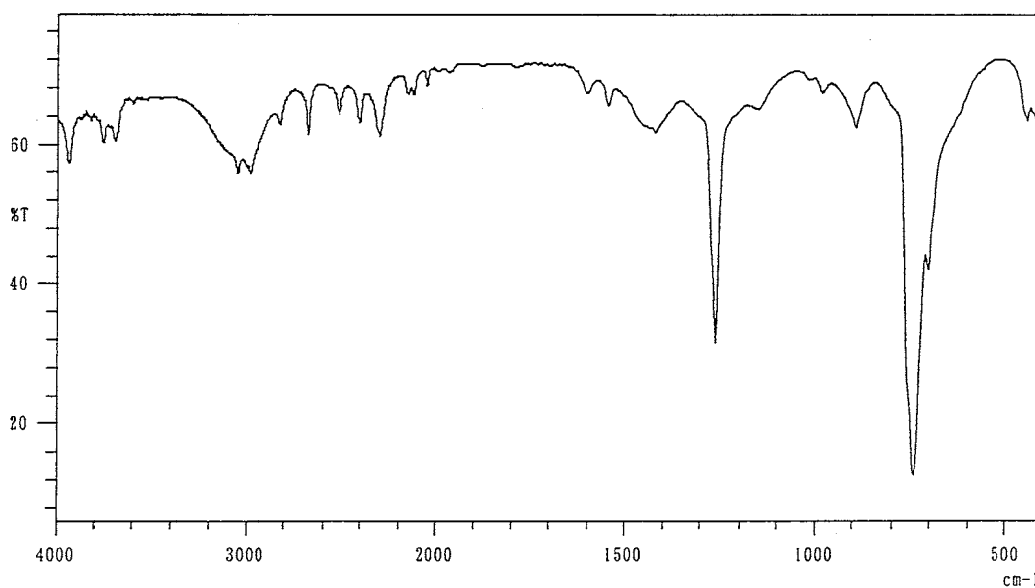
(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)



Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values*</u>
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

E. Lot No. : ESJ4826

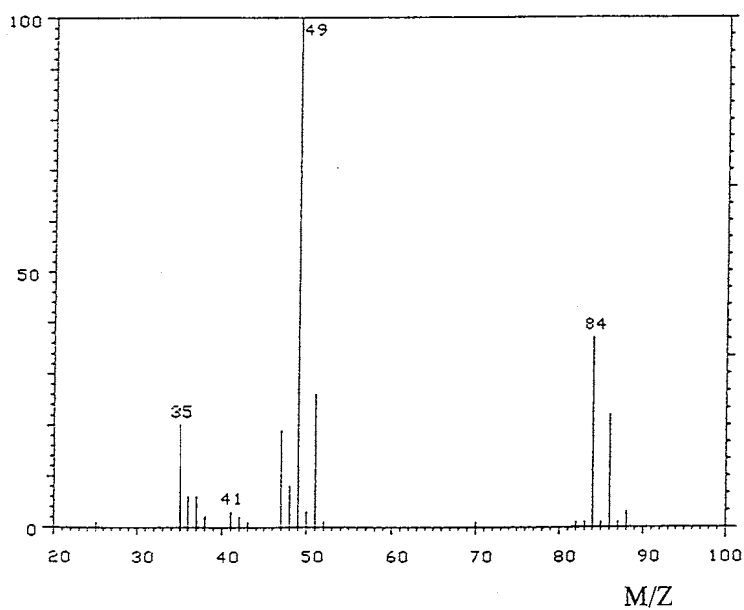
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

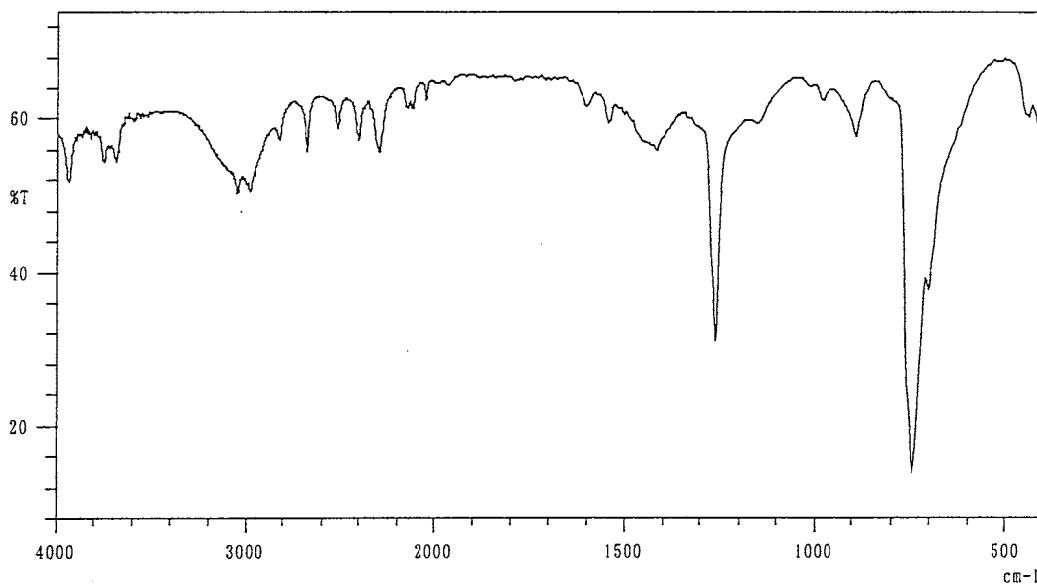
84

(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values</u> *
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

F. Lot No. : ESF6669

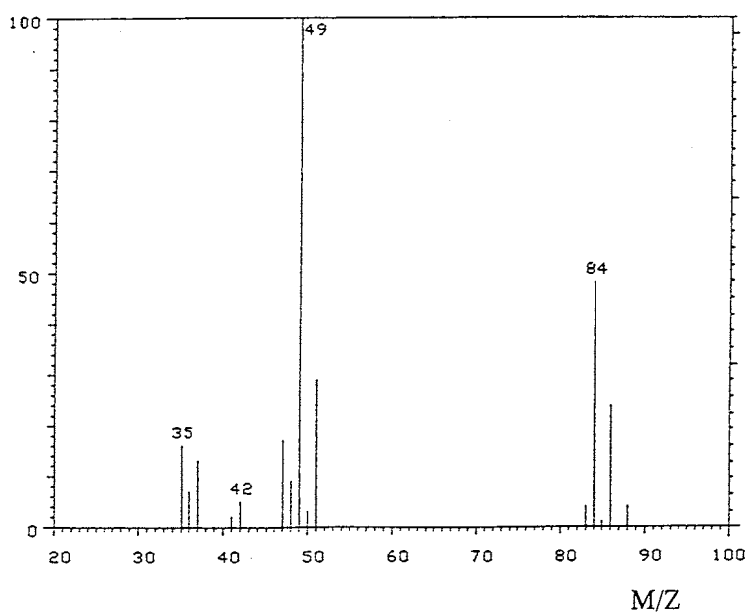
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

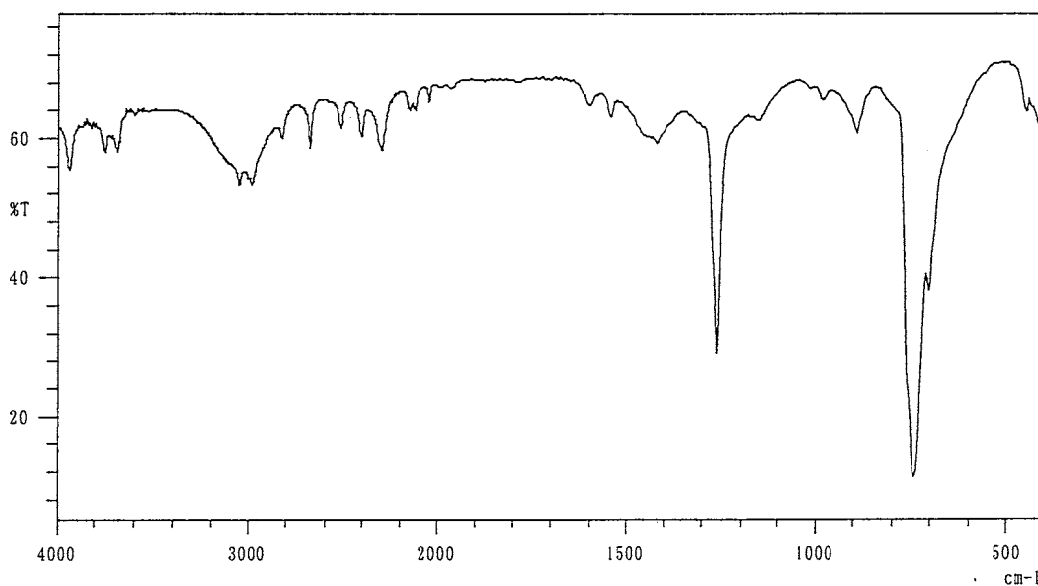
84

(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values</u> *
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

G. Lot No. : DLP1873

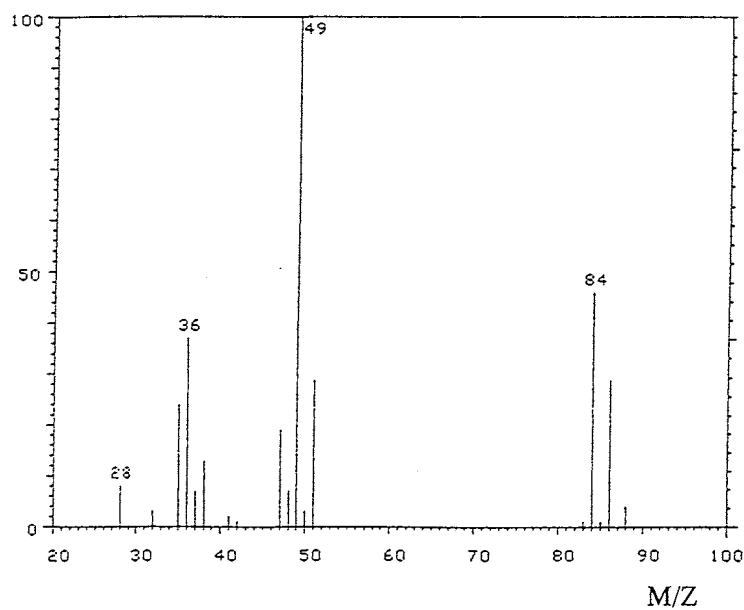
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

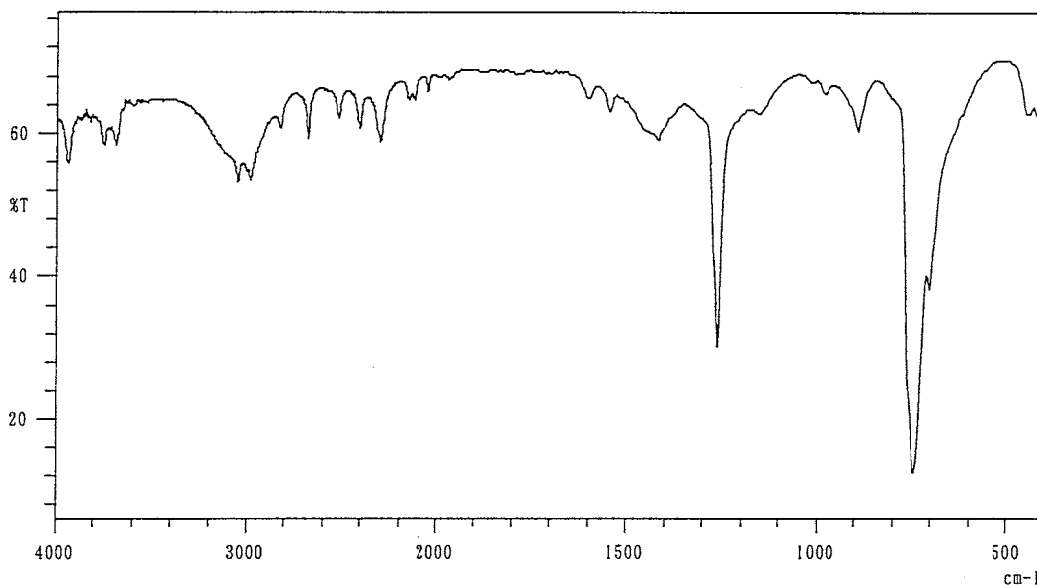
84

\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values*</u>
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

H. Lot No. : DLL3810

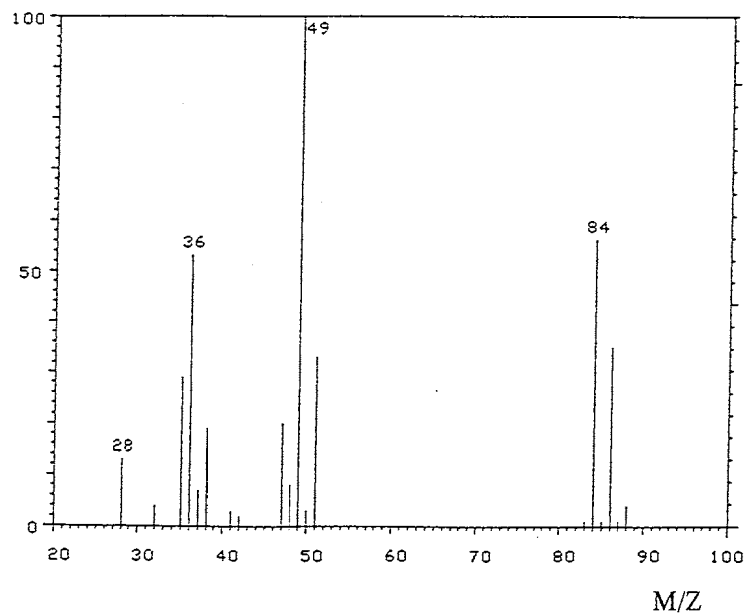
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

84

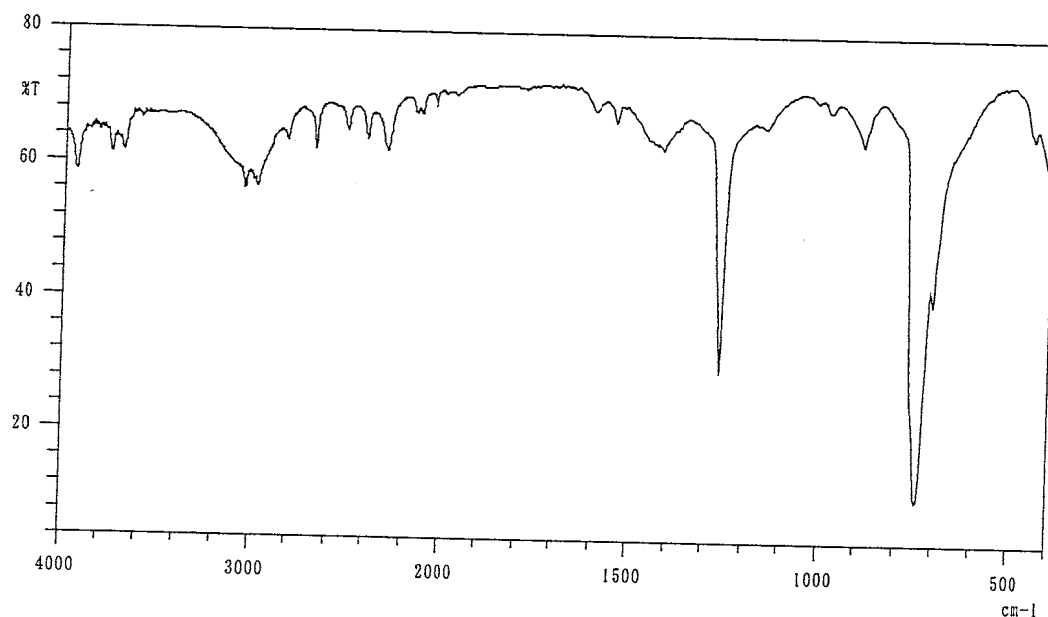
(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)



Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values</u> *
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

I. Lot No. : DLH5609

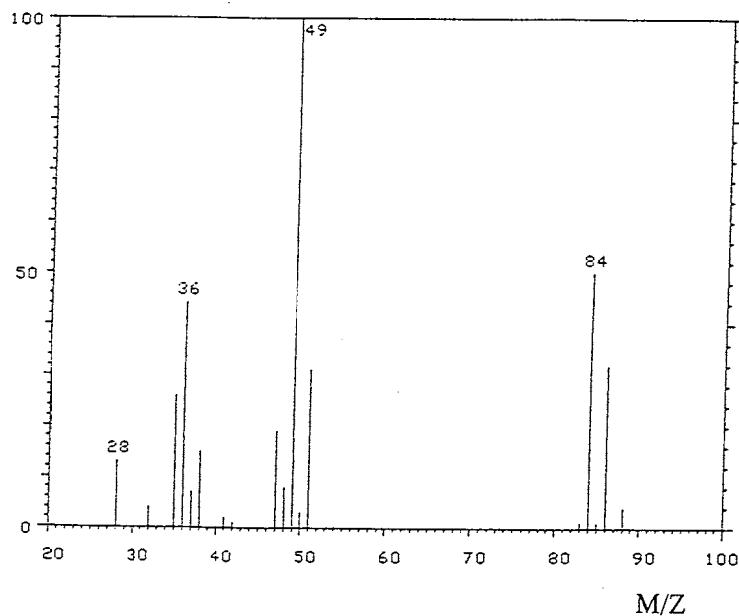
1. Spectral data

Mass Spectrometry

Instrument : Hitachi M-80B Mass Spectrometer

Ionization : EI (Electron Ionization)

Ionization Voltage : 70eV



Mass Spectrum of Test Substance

Results: The mass spectrum was consistent with literature spectrum.

Determines

Fragment Peak (M/Z)

35

49

84

Literature Values\*

Fragment Peak (M/Z)

35

49

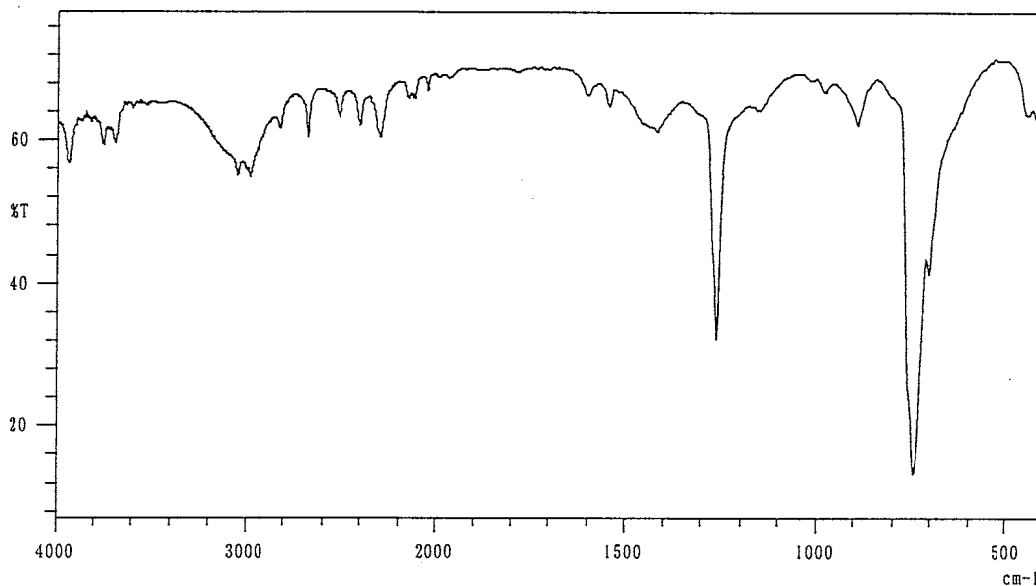
84

(\* EPA/NIH Mass Spectral  
Data Base (1978) Vol. 1, p. 33.)

Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr



Infrared Spectrum of Test Substance

Results: The infrared spectrum was consistent with literature spectrum.

<u>Determined Values</u>	<u>Literature Values</u> *
Wave Number (cm <sup>-1</sup> )	Wave Number (cm <sup>-1</sup> )
650~840	650~850
870~940	870~940
970~1000	970~1000
1120~1180	1130~1180
1200~1340	1200~1350
1370~1500	1380~1500
1530~1570	1540~1570
1580~1630	1580~1630
2040~2090	2050~2090
2100~2190	2120~2190
2250~2360	2280~2370
2380~2460	2400~2460
2500~2550	2500~2560
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3670~3750
3730~3800	3750~3800
3900~4000	3900~4000

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

2. Conclusions: The test substance was identified as dichloromethane, by the mass spectrum and the infrared spectrum.

APPENDIX P 2  
STABILITY OF DICHLOROMETHANE IN THE 2-YEAR  
INHALATION STUDY

## STABILITY OF DICHLOROMETHANE IN THE 2-YEAR INHALATION STUDY

Test Substance : Dichloromethane (Wako Pure Chemical Industries, LTD.)

A. Lot No. : APR5260

1. Sample : This lot was used from 1994.11.18 to 1995.1.9. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1994.10.07 (date analyzed)</u>	<u>1995.01.09 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1994.10.7 and one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.1.9. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0008% at 1994.10.7. No new trace impurity peak in the test substance analyzed at 1995.1.9 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1994.10.07	1	3.302	99.99
	2	3.403	0.01
1995.01.09	1	3.305	99.99
	2	3.407	0.01

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

B. Lot No. : KCH4634

1. Sample : This lot was used from 1995.1.7 to 1995.4.3. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Slit : Medium

<u>1994.12.27 (date analyzed)</u>	<u>1995.04.03 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1994.12.27 and one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.4.3. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0008% at 1995.4.3. No new trace impurity peak in the test substance analyzed at 1995.1.9 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1994.12.27	1	3.3	99.98
	2	3.407	0.02
1995.04.03	1	3.307	99.99
	2	3.407	0.01

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



C. Lot No. : ESR7256

1. Sample : This lot was used from 1995.4.4 to 1995.6.28. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1995.03.27 (date analyzed)</u>	<u>1995.06.28 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.3.27 and one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.6.28. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0008% at 1995.3.27. No new trace impurity peak in the test substance analyzed at 1995.6.28 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1995.03.27	1	3.302	99.98
	2	3.407	0.02
1995.06.28	1	3.302	99.81
	2	3.405	0.19

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

D. Lot No. : ESM2924

1. Sample : This lot was used from 1995.6.28 to 1995.9.22. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1995.06.26 (date analyzed)</u>	<u>1995.10.02 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.6.26 and one major peak(peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.10.2. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0008% at 1995.6.26. No new trace impurity peak in the test substance analyzed at 1995.10.2 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1995.06.26	1	3.302	99.99
	2	3.405	0.01
1995.10.02	1	3.302	99.99
	2	3.405	0.01

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

E. Lot No. : ESJ4826

1. Sample : This lot was used from 1995.9.22 to 1995.12.25. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1995.09.14 (date analyzed)</u>	<u>1995.12.25 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.2) and one impurity(peak No.2 and peak No.2 < 1% of total area) analyzed at 1995.9.14 and one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.12.25. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.3) in the dichloromethane, the amount in the test substance were 0.0004% at 1995.9.14. No new trace impurity peak in the test substance analyzed at 1995.12.25 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1995.09.14	1	3.27	0.001
	2	3.305	99.987
	3	3.408	0.012
1995.12.25	1	3.302	99.99
	2	3.407	0.01

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

F. Lot No. : ESF6669

1. Sample : This lot was used from 1995.12.25 to 1996.4.1. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1995.12.22 (date analyzed)</u>	<u>1996.04.02 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60°C

Flow Rate : 1ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1995.12.22 and one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1996.4.2. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0007 % at 1995.12.22. No new trace impurity peak in the test substance analyzed at 1996.4.2 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1995.12.22	1	3.302	99.83
	2	3.405	0.17
1996.04.02	1	3.302	99.99
	2	3.405	0.01

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



G. Lot No. : DLP1873

1. Sample : This lot was used from 1996.4.1 to 1996.6.27. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1996.03.25(date analyzed)</u>	<u>1996.06.28(date analyzed)</u>
Wave Number( $\text{cm}^{-1}$ )	Wave Number( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1996.3.25 and one major peak(peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1996.6.28. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0006% at 1996.3.25. No new trace impurity peak in the test substance analyzed at 1996.6.28 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1996.03.25	1	3.302	99.98
	2	3.407	0.02
1996.06.28	1	3.302	99.98
	2	3.407	0.02

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

H. Lot No. : DLL3810

1. Sample : This lot was used from 1996.6.28 to 1996.9.26. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1996.06.26(date analyzed)</u>	<u>1996.09.26(date analyzed)</u>
Wave Number( $\text{cm}^{-1}$ )	Wave Number( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1996.6.26 and one major peak (peak No.1) and one impurity(peak No.2 < 1% of total area) analyzed at 1996.9.26. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0007% at 1996.6.26. No new trace impurity peak in the test substance analyzed at 1996.9.26 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1996.06.26	1	3.302	99.98
	2	3.407	0.02
1996.09.26	1	3.302	99.99
	2	3.407	0.01

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

I. Lot No. : DLH5609

1. Sample : This lot was used from 1996.9.27 to 1996.11.14. Test substance was stored at room temperature.

## 2. Infrared Spectrometry

Instrument : Shimadzu FT-IR 8200PC Infrared Spectrometer

Cell : KBr

Results: The result of infrared spectrum did not change when before and after studies.

<u>1996.09.25 (date analyzed)</u>	<u>1996.11.25 (date analyzed)</u>
Wave Number ( $\text{cm}^{-1}$ )	Wave Number ( $\text{cm}^{-1}$ )
650~840	650~840
870~940	870~940
970~1000	970~1000
1120~1180	1120~1180
1200~1340	1200~1340
1370~1500	1370~1500
1530~1570	1530~1570
1580~1630	1580~1630
2040~2090	2040~2090
2100~2190	2100~2190
2250~2360	2250~2360
2380~2460	2380~2460
2500~2550	2500~2550
2650~2730	2650~2730
2800~2860	2800~2860
2900~3200	2900~3200
3650~3730	3650~3730
3730~3800	3730~3800
3900~4000	3900~4000

## 3. Gas Chromatography

Instrument : Hewlett Packard 5890A Gas Chromatograph

Column : Methyl Silicone (0.2mm  $\phi$   $\times$  50m)

Column Temperature : 60° C

Flow Rate : 1 ml/min

Detector : FID (Flame Ionization Detector)

Injection Volume : 1  $\mu$ l

Results: Gas chromatography indicated one major peak (peak No.1) and one impurity(peak No.2 < 1% of total area) analyzed at 1996.9.25 and one major peak (peak No.1) and one impurity (peak No.2 < 1% of total area) analyzed at 1996.11.25. It was identified only by comparing its gas chromatograph with that of the amylene (peak No.2) in the dichloromethane, the amount in the test substance were 0.0008% at 1996.9.25. No new trace impurity peak in the test substance analyzed at 1996.11.25 was detected.

Date	Peak No.	Retention Time (min)	Area (%)
1996.09.25	1	3.302	99.99
	2	3.407	0.01
1996.11.25	1	3.303	99.98
	2	3.407	0.02

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

## APPENDIX Q 1

### CONCENTRATION OF DICHLOROMETHANE IN THE INHALATION CHAMBER OF THE 2-YEAR INHALATION STUDY

CONCENTRATION OF DICHLROMETHANE IN THE INHALATION CHAMBER  
OF THE 2-YEAR INHALATION STUDY

Group Name	Concentration (ppm)
	Mean $\pm$ S.D.
Control	0.0 $\pm$ 0.0
1000ppm	991.2 $\pm$ 8.9
2000ppm	1989.8 $\pm$ 14.4
4000ppm	3980.5 $\pm$ 24.8



## APPENDIX Q 2

### ENVIRONMENTAL CONDITIONS OF INHALATION CHAMBER IN THE 2-YEAR INHALATION STUDY OF DICHLOROMETHANE

# ENVIROMENTAL CONDITIONS OF INHALATION CHANBER IN THE 2-YEAR INHALATION STUDY OF DICHLOROMETHANE

Group Name	Temperature(°C) Mean ± S.D.	Humidity(%) Mean ± S.D.	Ventilation Rate(L/min) Mean ± S.D.	Air Changes(time/h) Mean
Control	22.1 ± 0.1	55.0 ± 1.4	884.6 ± 5.4 (444.3 ± 2.8)	12.1 (6.1)
1000ppm	22.1 ± 0.1	54.6 ± 1.3	885.8 ± 5.5 (445.5 ± 2.6)	12.1 (6.1)
2000ppm	22.1 ± 0.1	54.2 ± 1.3	887.6 ± 5.6 (445.2 ± 2.5)	12.1 (6.1)
4000ppm	22.2 ± 0.1	55.2 ± 1.5	887.0 ± 5.4 (446.5 ± 2.4)	12.1 (6.1)

( ):during exposure

## APPENDIX R 1

### METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS IN THE 2-YEAR INHALATION STUDY OF DICHLOROMERHANE

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

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)	Pattern recognition method <sup>2)</sup>
Differential WBC	(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	Enzymatic method (GLK·G-6-PDH) <sup>3)</sup>
T-cholesterol	Enzymatic method (CE·COD·POD) <sup>3)</sup>
Triglyceride	Enzymatic method (LPL·GK·GPO·POD) <sup>3)</sup>
Glutamic oxaloacetic transaminase (GOT)	
Glutamic pyruvic transaminase (GPT)	UV·Rate method <sup>3)</sup>
Lactate dehydrogenase (LDH)	UV·Rate method <sup>3)</sup>
Alkaline phosphatase (ALP)	UV·Rate method <sup>3)</sup>
Creatine phosphokinase (CPK)	p-Nitrophenylphosphate method <sup>3)</sup>
Urea nitrogen	UV·Rate method <sup>3)</sup>
Sodium	Enzymatic method (Urease·GLDH) <sup>3)</sup>
Potassium	Ion selective electrode method <sup>3)</sup>
Chloride	Ion selective electrode method <sup>3)</sup>
Calcium	Ion selective electrode method <sup>3)</sup>
Inorganic phosphorus	OCPC method <sup>3)</sup>
	Enzymatic method (PNP·XOD·POD) <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, USA)

2) Automatic blood cell differential analyzer (Hitachi 8200 : Hitachi, Ltd., Japan)

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

4) Ames reagent strips for urinalysis (Uro-Labstix : Bayer-Sankyo Co., Ltd., Japan)

## APPENDIX R 2

### UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR INHALATION STUDY OF DICHLOROMETHANE

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

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 transaminase (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