

4-*tert*-ブチルカテコールのラットを用いた  
経口投与によるがん原性試験（混餌試験）報告書

試験番号：0739

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TABLE A 1

SURVIVAL ANIMAL NUMBERS: MALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 1

Group Name	Animals At start	Administration (Weeks)													
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Control	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

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[illegible]

Group Name	Animals At start	Administration (Weeks)													
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
Control	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
Number of survival/ Number of effective animals Survival rate(%)															

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 3

Group Name	Animals At start	Administration (Weeks)													
		28	29	30	31	32	33	34	35	36	37	38	39	40	41
Control	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 4

Group Name	Animals At start	Administration (Weeks)													
		42	43	44	45	46	47	48	49	50	51	52	53	54	55
Control	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
444 ppm	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1333 ppm	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
4000 ppm	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 5

Group Name	Animals At start	Administration (Weeks)													
		56	57	58	59	60	61	62	63	64	65	66	67	68	69
Control	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	49/50	48/50	48/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	96.0	96.0
444 ppm	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1333 ppm	50	50/50	50/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50
		100.0	100.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
4000 ppm	50	50/50	50/50	50/50	50/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	48/50
		100.0	100.0	100.0	100.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	96.0
Number of survival/		Number of effective animals													
Survival rate(%)															

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 6

Group Name	Animals At start	Administration (Weeks)													
		70	71	72	73	74	75	76	77	78	79	80	81	82	83
Control	50	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	49/50 98.0	49/50 98.0	47/50 94.0	47/50 94.0	47/50 94.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0
1333 ppm	50	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0
4000 ppm	50	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0
Number of survival/ Number of effective animals Survival rate(%)															

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 7

Group Name	Animals At start	Administration (Weeks)													
		84	85	86	87	88	89	90	91	92	93	94	95	96	97
Control	50	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	45/50 90.0	44/50 88.0	44/50 88.0
444 ppm	50	46/50 92.0	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	44/50 88.0	42/50 84.0	41/50 82.0	41/50 82.0	40/50 80.0
1333 ppm	50	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	45/50 90.0	44/50 88.0	43/50 86.0	43/50 86.0	43/50 86.0	43/50 86.0	43/50 86.0	43/50 86.0	41/50 82.0	39/50 78.0
4000 ppm	50	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	45/50 90.0
Number of survival/ Number of effective animals Survival rate(%)															

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 8

Group Name	Animals At start	Administration (Weeks)						
		98	99	100	101	102	103	104
Control	50	43/50 86.0	41/50 82.0	40/50 80.0	40/50 80.0	39/50 78.0	39/50 78.0	39/50 78.0
444 ppm	50	39/50 78.0	39/50 78.0	39/50 78.0	39/50 78.0	39/50 78.0	37/50 74.0	36/50 72.0
1333 ppm	50	39/50 78.0	39/50 78.0	39/50 78.0	38/50 76.0	36/50 72.0	36/50 72.0	36/50 72.0
4000 ppm	50	44/50 88.0	44/50 88.0	44/50 88.0	44/50 88.0	43/50 86.0	42/50 84.0	41/50 82.0
Number of survival/ Number of effective animals Survival rate(%)								

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**TABLE A 2**

**SURVIVAL ANIMAL NUMBERS: FEMALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 9

Group Name	Animals At start	Administration (Weeks)													
		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Control	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 10

Group Name	Animals At start	Administration (Weeks)													
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
Control	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

BAIS5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 11

Group Name	Animals At start	Administration (Weeks)													
		28	29	30	31	32	33	34	35	36	37	38	39	40	41
Control	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

BAIS5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 12

Group Name	Animals At start	Administration (Weeks)													
		42	43	44	45	46	47	48	49	50	51	52	53	54	55
Control	50	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
444 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	48/50 96.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
Number of survival/ Number of effective animals Survival rate(%)															

(HAN360)

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STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 13

Group Name	Animals At start	Administration (Weeks)													
		56	57	58	59	60	61	62	63	64	65	66	67	68	69
Control	50	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
444 ppm	50	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0
1333 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
4000 ppm	50	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0	50/50 100.0
Number of survival/ Number of effective animals Survival rate(%)															

(HAN360)

BA1S5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 14

Group Name	Animals At start	Administration (Weeks)													
		70	71	72	73	74	75	76	77	78	79	80	81	82	83
Control	50	49/50	49/50	49/50	48/50	48/50	48/50	48/50	48/50	48/50	48/50	47/50	47/50	47/50	47/50
		98.0	98.0	98.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	94.0	94.0	94.0	94.0
444 ppm	50	46/50	46/50	46/50	45/50	45/50	45/50	45/50	45/50	45/50	45/50	45/50	45/50	45/50	45/50
		92.0	92.0	92.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
1333 ppm	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	49/50	49/50	49/50	49/50	49/50	49/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	98.0	98.0	98.0	98.0	98.0
4000 ppm	50	50/50	50/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50
		100.0	100.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0

Number of survival/ Number of effective animals  
Survival rate(%)

(HAN360)

BA1S5

SURVIVAL ANIMAL NUMBERS

Group Name	Animals At start	Administration (Weeks)													
		84	85	86	87	88	89	90	91	92	93	94	95	96	97
Control	50	47/50	47/50	47/50	46/50	46/50	46/50	46/50	46/50	46/50	46/50	46/50	45/50	45/50	44/50
		94.0	94.0	94.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	90.0	90.0	88.0
444 ppm	50	45/50	45/50	45/50	44/50	44/50	43/50	43/50	43/50	43/50	43/50	43/50	43/50	43/50	41/50
		90.0	90.0	90.0	88.0	88.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	82.0
1333 ppm	50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	47/50	47/50	47/50	47/50	46/50	45/50	45/50
		98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	94.0	94.0	94.0	94.0	92.0	90.0
4000 ppm	50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	49/50	47/50	47/50	47/50	46/50	45/50	45/50
		98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	94.0	94.0	94.0	92.0	90.0
Number of survival/ Survival rate(%)		Number of effective animals													

BAIS5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104  
SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 16

Group Name	Animals At start	Administration (Weeks)						
		98	99	100	101	102	103	104
Control	50	44/50 88.0	42/50 84.0	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0	40/50 80.0
444 ppm	50	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0	40/50 80.0	40/50 80.0
1333 ppm	50	45/50 90.0	45/50 90.0	45/50 90.0	44/50 88.0	44/50 88.0	44/50 88.0	43/50 86.0
4000 ppm	50	44/50 88.0	44/50 88.0	44/50 88.0	44/50 88.0	43/50 86.0	43/50 86.0	43/50 86.0
Number of survival/ Number of effective animals Survival rate(%)								
(HAN360)								
BAIS5								

BA1S5

**TABLE B 1**

**CLINICAL OBSERVATION: MALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 1

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrIcrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	4	7	7	7	7	7	15	15	17
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7											
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	17	21	21	21	21	23	23	23	23	26	26	26	26	28
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7											
DEATH	Control	0	0	0	0	0	0	0	0	0	0	1	2	2	2
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 ppm	0	0	0	1	1	1	1	1	1	1	1	1	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	4000 ppm	28	27	27	29	32	32	32	32	32	33	33	33	33	33
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
DEATH	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	444 ppm	0	0	0	0	1	1	3	3	3	3	3	3	3	3
	1333 ppm	1	1	1	1	1	1	1	1	4	4	4	4	4	4
	4000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	1333 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
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	2	2	2	2	2	2	2	1	0	0	0	0	0	0
	4000 ppm	36	38	38	41	41	40	40	39	40	40	41	40	40	40
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	1	1	1	1	1	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
	444 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
DEATH	Control	2	2	2	2	2	2	2	2	2	2	5	5	5	5
	444 ppm	4	4	4	4	4	4	4	4	4	5	6	6	6	7
	1333 ppm	4	4	4	4	4	5	5	5	5	5	5	7	8	8
	4000 ppm	2	2	2	3	3	3	3	3	3	3	3	3	4	4
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	444 ppm	1	1	1	1	1	1	1	1	2	3	3	3	4	4
	1333 ppm	1	1	1	1	2	2	2	2	2	2	2	2	3	3
	4000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
HUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	40	40	39	39	39	39	39	39	39	39	24	25	27	27
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1	1
	444 ppm	1	1	1	1	1	1	1	2	2	1	1	2	1	1
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	6	7	7	7	7	7
	444 ppm	7	7	7	7	7	8
	1333 ppm	8	8	9	9	9	9
	4000 ppm	4	4	4	5	5	6
MORIBUND SACRIFICE	Control	3	3	3	4	4	4
	444 ppm	4	4	4	4	6	6
	1333 ppm	3	3	3	5	5	5
	4000 ppm	2	2	2	2	3	3
HUNCHBACK POSITION	Control	0	0	0	0	0	0
	444 ppm	1	1	1	1	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
WASTING	Control	1	1	1	1	0	0
	444 ppm	1	1	1	1	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1
COLORED	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	27	27	27	26	15	15
PILORECTION	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	1	0	0
SOILED PERI-GENITALIA	Control	1	1	1	1	1	1
	444 ppm	1	1	1	1	0	0
	1333 ppm	0	0	0	1	1	1
	4000 ppm	0	0	0	0	0	1
GUM	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1-7	2-7	3-7											
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	4000 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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	1	1
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7											
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	2	2	2	2	2	2	2	2	2	3	3	3
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	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
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7											
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1333 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	2	2	2	2	2	3
CORNEAL OPACITY	Control	1	1	1	0	0	0	0	0	0	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	2	2	2	1	1	1	1	1	2	2	2	2	2	2
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	2	1	1	1	2	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	2	2	2	2	2
	1333 ppm	0	0	0	0	0	0	0	1	2	2	2	1	1	2
	4000 ppm	3	3	3	2	2	3	4	3	4	3	3	3	2	2
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	0	0	0	0	0	0	0	0	1	1	1	1	1
	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	1	1	1	1	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
CATARACT	Control	0	0	0	0	1	1	1	2	2	2	2	2	2	2
	444 ppm	1	1	1	1	2	3	3	3	3	3	3	3	3	3
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	3	3	3	3	4	4	4	4	4	4	4	4	4	4
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	2	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	2	4	4	4	4	4	4	5	5	5	5	6	7
	444 ppm	2	2	4	3	3	3	4	3	3	3	3	3	5	4
	1333 ppm	2	3	4	3	3	4	4	4	5	5	4	4	5	5
	4000 ppm	2	2	2	3	3	3	2	3	3	3	3	3	3	3
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	2	1
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	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	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	1	1	1	1
	444 ppm	3	3	3	3	3	3	3	3	4	4	3	3	3	3
	1333 ppm	0	1	1	1	1	3	3	3	3	3	3	3	3	3
	4000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	1	1	1	0	0	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	2	2	2	2	2	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALOCCLUSION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	444 ppm	0	1	1	1	1	1	1	1	1	0	0	0	0	0
	1333 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	1	1
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	8	8	8	8	8	8	9	11	11	11	9	9	10	10
	444 ppm	3	3	3	3	3	3	3	3	4	3	3	4	4	5
	1333 ppm	5	5	5	5	5	5	5	6	6	8	7	7	6	6
	4000 ppm	3	3	3	3	3	4	4	5	5	5	5	5	4	4
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	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	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	1	1	1	1	2	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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	0	0
M. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrjCrj[F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
CATARACT	Control	2	2	2	1	1	1
	444 ppm	3	3	3	3	3	3
	1333 ppm	3	3	3	2	2	2
	4000 ppm	4	4	5	5	5	5
CORNEAL OPACITY	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
MALOCCLUSION	Control	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	9	10	10	11	11	11
	444 ppm	5	5	5	5	5	6
	1333 ppm	6	6	5	5	5	5
	4000 ppm	6	6	5	5	5	5
INTERNAL MASS	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	1	1
	1333 ppm	1	1	1	1	2	2
	4000 ppm	0	1	0	0	0	0
M. PERI-MOUTH	Control	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. HEAD	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7											
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	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. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	1	1	1	1	1	1	1	1	1	0	0	0
M. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7											
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	2	2	2	2	2
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4000 ppm	1	1	1	1	1	2	2	2	2	2	2	2	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1	1	1	1	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	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

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FORELIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	2	2	1	1	2	2	2	2	2	2	2	2	2
	444 ppm	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
	1333 ppm	0	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	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	444 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	1333 ppm	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR DORSUM	Control	1	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	444 ppm	0	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	1333 ppm	1	1	2	1	1	2	2	2	3	3	3	3	3	3	3
	4000 ppm	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	444 ppm	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	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	1

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. FORELIMB	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	3	3	3	3	3	3	3	5	5	5	5	5	6	6
	444 ppm	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	1333 ppm	0	0	0	0	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
M. ABDOMEN	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1333 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ANTERIOR DORSUM	Control	3	3	3	3	3	3	3	3	3	3	1	1	1	1
	444 ppm	2	2	2	2	2	2	2	2	3	2	2	3	3	4
	1333 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4000 ppm	1	1	1	1	1	2	2	2	2	2	2	2	2	2
M. POSTERIOR DORSUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. SCROTUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M. NECK	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. FORELIMB	Control	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. BREAST	Control	6	6	7	7	7	7
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	2	2	1	1	1	1
M. ABDOMEN	Control	1	1	1	1	1	1
	444 ppm	1	1	1	1	1	1
	1333 ppm	1	1	1	1	1	1
	4000 ppm	1	1	1	1	1	1
M. ANTERIOR DORSUM	Control	1	2	1	2	2	2
	444 ppm	4	4	4	4	4	5
	1333 ppm	3	3	3	3	3	3
	4000 ppm	2	2	2	2	2	2
M. POSTERIOR DORSUM	Control	2	2	2	2	2	2
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. SCROTUM	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1-7	2-7	3-7											
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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 TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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 TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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 TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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	1	1
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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 TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	4000 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	1	1	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	1	1	0	1	1	1	1	1	1
	1333 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
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	1333 ppm	0	0	0	0	0	0	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 TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	1	1	1	0	0	0	0	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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
ANEMIA	Control	0	0	0	0	0	0	0	0	1	1	0	0	0	1
	444 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	2
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	1	1	0	0	1	1	1	1	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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 TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	1333 ppm	0	0	0	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	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M. TAIL	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	1	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0
ANEMIA	Control	1	0	0	0	0	0
	444 ppm	0	0	0	0	0	1
	1333 ppm	2	3	2	1	1	1
	4000 ppm	0	1	1	1	1	1
ULCER	Control	0	0	0	0	0	0
	444 ppm	0	0	0	1	1	1
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	1	0	0	0	0	0
	4000 ppm	2	1	1	1	1	1
HEMORRHAGE	Control	0	0	0	0	0	1
	444 ppm	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
ABNORMAL TESTIS	Control	0	0	0	0	0	0
	444 ppm	1	1	1	1	1	1
	1333 ppm	1	1	1	1	1	1
	4000 ppm	0	1	1	0	0	0
TORTICOLLIS	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 33

Clinical sign	Group Name	Administration Week-day			4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
		1-7	2-7	3-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	444 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	1333 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	4000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50

(HAN190)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	49	50
	444 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	1333 ppm	50	50	50	50	50	50	50	50	50	50	50	50	49	49
	4000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50

(HAN190)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	49	49	49	49	49	49
	444 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	1333 ppm	49	49	49	49	49	49	49	49	48	48	48	47	47	48
	4000 ppm	50	50	50	50	49	45	42	42	42	42	42	34	34	32

(HAN190)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 36

Clinical sign	Group Name	Administration Week-day			46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	48	49	49	49	49	49	49	49	49	49	49	49	49	49
	444 ppm	50	50	50	49	48	50	48	49	49	49	49	49	49	49
	1333 ppm	48	48	48	48	48	48	48	47	47	47	47	47	47	48
	4000 ppm	32	28	28	28	28	26	26	26	26	23	23	23	23	21

(HAN190)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI Crij [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	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	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	49	49	49	50	49	49	48	49	49	48	46	46	46	46
	444 ppm	49	49	49	49	49	49	49	49	49	47	47	47	47	47
	1333 ppm	47	47	46	47	47	47	47	46	43	43	43	44	44	43
	4000 ppm	21	22	22	20	17	17	17	17	17	16	16	16	15	15

(HANT90)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 38

Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	0
	1333 ppm	0	0	1	0	0	0	0	0	0	1	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	46	45	44	44	44	44	44	44	43	43	43	43	42	41
	444 ppm	47	47	45	46	44	43	38	39	39	39	39	39	37	38
	1333 ppm	43	42	41	42	42	41	41	41	38	38	39	39	38	38
	4000 ppm	12	10	10	7	6	7	7	7	6	6	5	6	6	6

(HAN190)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	1	1	1	0	1	1
	444 ppm	0	0	0	0	0	0	0	0	1	1	0	0	0	0
	1333 ppm	0	0	0	1	0	0	0	0	0	0	0	0	1	2
	4000 ppm	0	1	1	1	1	1	0	0	0	0	1	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	2	1	0	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	1	0	0	0	0	0	0	0	1	0	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
NON REMARKABLE	Control	40	40	40	40	40	40	39	36	36	35	34	34	32	31
	444 ppm	38	37	37	37	37	37	37	37	33	33	33	32	32	30
	1333 ppm	38	37	37	36	36	35	35	34	34	32	33	31	29	27
	4000 ppm	6	6	7	6	6	6	6	6	6	6	19	18	14	14

(HAN190)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : MALE

PAGE : 40

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
YELLOW URINE	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	1	1
	1333 ppm	2	3	3	1	2	2
	4000 ppm	1	1	0	0	0	0
SMALL STOOL	Control	0	0	0	1	1	0
	444 ppm	1	0	0	0	0	0
	1333 ppm	2	2	1	1	1	2
	4000 ppm	0	0	1	2	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0
	444 ppm	0	0	1	1	1	0
	1333 ppm	1	1	1	2	2	2
	4000 ppm	0	0	1	1	0	0
NON REMARKABLE	Control	29	28	28	27	27	27
	444 ppm	29	29	28	28	26	25
	1333 ppm	25	25	27	25	25	25
	4000 ppm	13	13	12	12	21	20

(HAN190)

BAIS 5

**TABLE B 2**

**CLINICAL OBSERVATION: FEMALE**



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	1	1	7	7	7	7
	4000 ppm	0	0	0	0	0	0	0	0	10	10	16	16	16	16
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	6	6	6	3	3	0	0	0	0
	4000 ppm	0	1	2	2	2	17	19	20	3	3	0	0	0	0

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	2	2	2	2	0	0	0	0	1	1	1	1	1	1
	4000 ppm	10	10	13	16	15	15	13	13	18	18	21	21	20	20
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
DEATH	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	1	0	0	1	1	1	1	1	4
	4000 ppm	23	23	21	21	23	23	20	31	29	29	29	30	30	30
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 44

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	1	1	1	1	1	1	1	1	1	2	2
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	1333 ppm	5	5	6	6	7	7	9	10	10	14	14	14	14	19
	4000 ppm	29	29	29	29	28	27	28	31	31	32	32	32	32	33
PILOERECTOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	1	0	0	0	0	0	1	1	0	1	0	0
	1333 ppm	1	1	1	2	2	3	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7											
DEATH	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	19	23	23	23	23	23	24	21	22	24	26	26	28	28
	4000 ppm	34	37	38	38	38	38	38	37	37	36	36	36	36	37
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	1333 ppm	0	0	0	0	0	0	0	2	1	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
DEATH	Control	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	444 ppm	3	3	4	4	4	4	4	4	4	4	4	4	4	4
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	1	1	1	1	1
	444 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1333 ppm	0	0	0	0	0	0	0	1	1	1	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	Control	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	27	27	26	18	17	18	14	14	13	14	14	19	20	22
	4000 ppm	36	35	35	32	32	32	31	31	31	34	33	32	32	31
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1	1	0	0	0	0
	444 ppm	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Crj[F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
DEATH	Control	2	2	3	3	3	3	3	3	3	3	4	4	5	5
	444 ppm	4	4	4	4	5	5	5	5	5	5	5	5	6	6
	1333 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	4000 ppm	1	1	1	1	1	1	1	2	2	2	2	3	3	3
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	1	1	2	2	2	2	2	2	2	2	2	2	3	3
	1333 ppm	1	1	1	1	1	1	2	2	2	2	3	4	4	4
	4000 ppm	0	0	0	0	0	0	0	1	1	1	2	2	2	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	1	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
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	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
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	20	20	19	19	17	8	7	8	9	7	7	7	7	6
	4000 ppm	30	30	30	30	32	24	24	25	25	24	24	24	24	24
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	1	1	1	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	0	1
	444 ppm	0	0	0	0	0	0	0	1	1	1	1	1	0	0
	1333 ppm	0	0	0	0	0	1	0	1	1	1	1	0	0	0
	4000 ppm	1	1	1	1	0	1	1	1	1	0	0	0	1	0

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
DEATH	Control	5	5	5	5	5	5
	444 ppm	6	6	6	6	7	7
	1333 ppm	1	1	2	2	2	2
	4000 ppm	3	3	3	4	4	4
MORIBUND SACRIFICE	Control	3	4	4	4	4	5
	444 ppm	3	3	3	3	3	3
	1333 ppm	4	4	4	4	4	5
	4000 ppm	3	3	3	3	3	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	5	5	7	7	7	4
	4000 ppm	24	24	24	23	23	17
PILOERECTION	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	1	1
	1333 ppm	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	1	1
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7	17-7											
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7											
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4000 ppm	0	0	0	0	0	0	0	1	1	2	2	2	2	2
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7											
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4000 ppm	3	3	3	3	3	3	3	3	3	4	4	4	4	4
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	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
	444 ppm	1	1	1	0	0	0	0	0	1	1	1	1	0	0
	1333 ppm	0	0	0	0	0	0	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. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
EXOPHTHALMOS	Control	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	4000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	1333 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	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	1333 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	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7											
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	1	1	1	1	2	2	2	2	2
	1333 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	4000 ppm	4	4	4	4	4	4	4	4	4	4	4	4	5	5
EXTERNAL MASS	Control	1	1	1	2	2	2	2	2	2	3	3	3	3	3
	444 ppm	0	0	0	0	1	1	1	1	3	3	3	4	4	4
	1333 ppm	0	0	0	0	0	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
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	4000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day			88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7											
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	1333 ppm	2	2	2	2	2	2	2	2	2	2	3	3	3	3
	4000 ppm	5	5	5	5	5	5	5	4	4	4	4	4	4	3
EXTERNAL MASS	Control	3	4	4	4	4	4	5	5	5	5	5	5	7	9
	444 ppm	4	4	4	4	4	4	5	5	5	5	5	5	4	5
	1333 ppm	3	3	3	3	3	3	3	4	4	4	4	5	5	5
	4000 ppm	1	1	1	1	2	2	2	2	2	2	2	1	3	3
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	2	2	2	2
	444 ppm	0	0	0	0	0	0	1	1	1	1	1	1	0	0
	1333 ppm	0	0	1	1	1	1	0	0	0	0	1	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	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. HEAD	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
EXOPHTHALMOS	Control	0	0	0	0	0	0
	444 ppm	0	0	1	1	1	1
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1
	444 ppm	3	3	3	3	3	4
	1333 ppm	3	3	3	3	3	3
	4000 ppm	3	3	3	3	3	4
EXTERNAL MASS	Control	7	7	7	8	8	9
	444 ppm	5	5	5	6	7	8
	1333 ppm	5	5	5	5	5	5
	4000 ppm	3	3	4	5	5	6
INTERNAL MASS	Control	1	0	0	0	0	2
	444 ppm	0	0	0	0	0	0
	1333 ppm	1	1	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	1
	4000 ppm	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0
	444 ppm	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1
M. HEAD	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	1	1
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
		15-7	16-7														
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	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	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	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	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	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	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	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	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	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	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	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	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
		29-7	30-7	31-7												
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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. : 0739  
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
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SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
		71-7	72-7	73-7												
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	2	2	2	2	3	3	3
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2
	444 ppm	0	0	0	0	1	1	1	1	1	1	1	2	1	1	1
	1333 ppm	0	0	0	0	0	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	0
M. ANTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	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	0
ANEMIA	Control	0	0	0	2	1	1	1	1	1	1	1	2	2	2	2
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	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	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	1	2	2	2	2
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
		85-7	86-7	87-7												
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	0	0	1	1	1	1	1	2	2	2	2	2	2	2	2
	444 ppm	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
	1333 ppm	1	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	0
M. ABDOMEN	Control	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2
	444 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	1333 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	4000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. ANTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	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	0
M. POSTERIOR DORSUM	Control	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	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	1	1
ANEMIA	Control	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2
	444 ppm	1	1	0	0	0	0	0	1	1	1	1	1	1	0	0
	1333 ppm	0	0	0	0	1	1	1	2	2	2	2	1	1	1	1
	4000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
ULCER	Control	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	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	1

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
 ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M. NECK	Control	1	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. BREAST	Control	1	1	1	1	1	3
	444 ppm	4	5	5	6	6	7
	1333 ppm	2	2	2	2	2	1
	4000 ppm	0	0	1	1	1	1
M. ABDOMEN	Control	2	2	2	3	3	2
	444 ppm	0	0	0	0	0	0
	1333 ppm	2	2	2	2	2	2
	4000 ppm	1	1	1	2	2	2
M. ANTERIOR DORSUM	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
M. POSTERIOR DORSUM	Control	1	1	1	1	1	1
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	1
M. GENITALIA	Control	2	3	3	3	3	3
	444 ppm	0	0	0	0	0	0
	1333 ppm	2	2	2	2	2	1
	4000 ppm	1	1	1	1	1	1
ANEMIA	Control	1	1	1	1	2	2
	444 ppm	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	0
	4000 ppm	0	0	1	0	0	0
ULCER	Control	1	1	1	1	2	1
	444 ppm	0	0	0	0	0	0
	1333 ppm	1	1	1	1	1	0
	4000 ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	1	1	1	1	1	1



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Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	444 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	1333 ppm	50	50	50	50	50	44	44	44	46	46	43	43	43	43
	4000 ppm	50	49	48	48	48	33	31	30	37	37	34	34	34	34

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]  
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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	50	50	50	50	50	50	50	50	50	50	50	50	50	49
	444 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	1333 ppm	48	48	48	48	50	50	50	50	49	49	49	49	49	49
	4000 ppm	40	40	37	34	35	35	37	37	32	32	29	29	30	30

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	444 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	49
	1333 ppm	49	49	49	49	49	49	50	50	49	49	49	49	49	43
	4000 ppm	27	27	29	29	27	27	30	18	20	20	20	19	19	19

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
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Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	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
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	1	1	0	0	0	0	0	0	0	0	1	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	1	1	0	0	0	0	1	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	49	49	49	49	49	49	49	49	49	49	49	47	47	47
	444 ppm	48	48	48	48	48	48	49	48	47	47	48	48	48	48
	1333 ppm	43	43	42	41	40	39	40	39	39	35	35	34	34	30
	4000 ppm	20	20	20	20	21	22	21	18	18	16	16	16	16	15

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Clinical sign	Group Name	Administration Week-day				60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
		57-7	58-7	59-7												
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	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	0
	444 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	47	47	46	47	47	47	47	47	47	47	47	47	47	47	47
	444 ppm	48	48	48	48	48	47	47	47	46	46	45	45	45	44	45
	1333 ppm	30	26	26	25	25	25	24	25	25	25	23	22	22	21	21
	4000 ppm	14	10	11	11	11	11	11	11	12	12	12	12	12	12	11

STUDY NO. : 0739  
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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 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
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SMALL STOOL	Control	0	1	0	0	0	0	0	1	1	0	0	0	0	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLIGO-STOOL	Control	0	1	0	0	0	0	0	0	2	1	1	1	1	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	4000 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NON REMARKABLE	Control	46	46	46	44	45	45	44	43	43	42	43	43	43	42
	444 ppm	45	45	45	45	44	43	43	43	41	40	40	40	40	40
	1333 ppm	22	22	23	31	32	30	33	33	34	33	33	26	25	24
	4000 ppm	12	12	12	15	15	15	16	16	16	13	14	15	15	15

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Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	1	1	1	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	1
	444 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	1	1	1	0	0	1	1	1	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	2
	444 ppm	1	1	0	0	0	0	0	1	1	0	0	0	0	0
	1333 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
SMALL STOOL	Control	1	1	1	1	0	0	0	0	0	0	0	0	0	1
	444 ppm	1	1	0	0	0	0	0	1	1	1	1	1	0	0
	1333 ppm	0	0	0	1	1	1	0	0	1	1	1	0	0	0
	4000 ppm	0	0	0	1	1	1	1	0	0	2	1	1	1	0
OLIGO-STOOL	Control	0	1	1	0	0	0	1	1	1	0	0	0	0	1
	444 ppm	1	1	0	1	0	0	0	1	1	0	0	0	0	0
	1333 ppm	0	0	0	0	0	1	0	0	1	1	1	0	0	0
	4000 ppm	0	0	0	1	1	1	1	0	0	1	0	1	1	0
NON REMARKABLE	Control	42	42	41	41	41	41	39	39	39	40	37	36	35	33
	444 ppm	39	39	39	38	38	38	37	37	37	37	37	37	36	35
	1333 ppm	25	25	25	25	26	34	34	31	30	32	31	31	31	31
	4000 ppm	16	16	16	16	15	21	21	20	20	19	19	18	17	17

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)  
ALL ANIMALS

SEX : FEMALE

PAGE : 72

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
HEMORRHAGE	Control	1	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	1	0
	4000 ppm	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	2
	444 ppm	0	0	0	0	0	0
	1333 ppm	0	0	0	0	0	0
	4000 ppm	0	0	0	0	0	0
SMALL STOOL	Control	0	1	1	1	3	3
	444 ppm	1	2	2	1	2	2
	1333 ppm	0	1	0	1	1	1
	4000 ppm	0	0	0	0	1	2
OLIGO-STOOL	Control	0	1	1	1	2	2
	444 ppm	0	1	1	0	2	2
	1333 ppm	0	1	0	1	2	1
	4000 ppm	0	0	0	0	1	1
NON REMARKABLE	Control	33	32	32	31	30	27
	444 ppm	33	32	31	31	27	27
	1333 ppm	31	31	29	28	28	30
	4000 ppm	16	16	16	16	16	17



TABLE C 1

BODY WEIGHT CHANGES AND  
SURVIVAL ANIMAL NUMBERS: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 1

Week on Study	Control			444 ppm			1333 ppm			4000 ppm		
	Av. Wt.	No. of Surviv. <50>		Av. Wt.	% of cont. <50>	No. of Surviv.	Av. Wt.	% of cont. <50>	No. of Surviv.	Av. Wt.	% of cont. <50>	No. of Surviv.
0	120 (50)	50/50		120 (50)	100	50/50	120 (50)	100	50/50	120 (50)	100	50/50
1	152 (50)	50/50		151 (50)	99	50/50	150 (50)	99	50/50	144 (50)	95	50/50
2	185 (50)	50/50		184 (50)	99	50/50	181 (50)	98	50/50	172 (50)	93	50/50
3	211 (50)	50/50		209 (50)	99	50/50	205 (50)	97	50/50	195 (50)	92	50/50
4	232 (50)	50/50		229 (50)	99	50/50	225 (50)	97	50/50	213 (50)	92	50/50
5	249 (50)	50/50		245 (50)	98	50/50	241 (50)	97	50/50	230 (50)	92	50/50
6	263 (50)	50/50		258 (50)	98	50/50	252 (50)	96	50/50	242 (50)	92	50/50
7	276 (50)	50/50		271 (50)	98	50/50	265 (50)	96	50/50	254 (50)	92	50/50
8	287 (50)	50/50		284 (50)	99	50/50	278 (50)	97	50/50	266 (50)	93	50/50
9	297 (50)	50/50		294 (50)	99	50/50	288 (50)	97	50/50	275 (50)	93	50/50
10	305 (50)	50/50		303 (50)	99	50/50	296 (50)	97	50/50	283 (50)	93	50/50
11	314 (50)	50/50		311 (50)	99	50/50	304 (50)	97	50/50	290 (50)	92	50/50
12	320 (50)	50/50		318 (50)	99	50/50	309 (50)	97	50/50	293 (50)	92	50/50
13	327 (50)	50/50		324 (50)	99	50/50	315 (50)	96	50/50	299 (50)	91	50/50
14	333 (50)	50/50		330 (50)	99	50/50	320 (50)	96	50/50	305 (50)	92	50/50
18	354 (50)	50/50		350 (50)	99	50/50	340 (50)	96	50/50	324 (50)	92	50/50
22	368 (50)	50/50		363 (50)	99	50/50	355 (50)	96	50/50	339 (50)	92	50/50
26	377 (50)	50/50		372 (50)	99	50/50	363 (50)	96	50/50	346 (50)	92	50/50
30	392 (50)	50/50		387 (50)	99	50/50	378 (50)	96	50/50	360 (50)	92	50/50
34	402 (50)	50/50		399 (50)	99	50/50	387 (50)	96	50/50	370 (50)	92	50/50
38	413 (50)	50/50		410 (50)	99	50/50	397 (50)	96	50/50	379 (50)	92	50/50
42	421 (50)	50/50		417 (50)	99	50/50	406 (50)	96	50/50	388 (50)	92	50/50
46	428 (50)	50/50		424 (50)	99	50/50	413 (50)	96	50/50	394 (50)	92	50/50
50	434 (50)	50/50		431 (50)	99	50/50	418 (50)	96	50/50	399 (50)	92	50/50
54	440 (50)	50/50		438 (50)	100	50/50	423 (50)	96	50/50	403 (50)	92	50/50
58	445 (50)	50/50		443 (50)	100	50/50	427 (49)	96	49/50	408 (50)	92	50/50
62	444 (50)	50/50		442 (50)	100	50/50	426 (49)	96	49/50	411 (49)	93	49/50
66	449 (50)	50/50		447 (50)	100	50/50	430 (49)	96	49/50	415 (49)	92	49/50
70	448 (48)	48/50		447 (50)	100	50/50	429 (49)	96	49/50	413 (48)	92	48/50
74	450 (48)	48/50		447 (50)	99	50/50	430 (49)	96	49/50	417 (48)	93	48/50
78	446 (48)	48/50		440 (47)	99	47/50	424 (49)	95	49/50	414 (47)	93	47/50
82	447 (48)	48/50		440 (46)	98	46/50	429 (46)	96	46/50	415 (47)	93	47/50
86	444 (48)	48/50		438 (45)	99	45/50	430 (45)	97	45/50	411 (47)	93	47/50
90	439 (48)	48/50		436 (45)	99	45/50	427 (43)	97	43/50	407 (46)	93	46/50
94	430 (48)	48/50		433 (42)	101	42/50	419 (43)	97	43/50	402 (46)	93	46/50
98	419 (43)	43/50		426 (39)	102	39/50	408 (39)	97	39/50	397 (44)	95	44/50
102	413 (39)	39/50		411 (39)	100	39/50	398 (36)	96	36/50	385 (43)	93	43/50
104	407 (39)	39/50		412 (36)	101	36/50	388 (36)	95	36/50	381 (41)	94	41/50

< >:No. of effective animals, ( ):No. of measured animals

Av. Wt. : g

TABLE C 2

BODY WEIGHT CHANGES AND  
SURVIVAL ANIMAL NUMBERS: FEMALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 2

Week on Study	Control			444 ppm			1333 ppm			4000 ppm		
	Av. Wt.	No. of Surviv. <50>		Av. Wt.	% of cont. <50>	No. of Surviv.	Av. Wt.	% of cont. <50>	No. of Surviv.	Av. Wt.	% of cont. <50>	No. of Surviv.
0	97 (50)	50/50		97 (50)	100	50/50	97 (50)	100	50/50	97 (50)	100	50/50
1	114 (50)	50/50		112 (50)	98	50/50	112 (50)	98	50/50	109 (50)	96	50/50
2	127 (50)	50/50		126 (50)	99	50/50	124 (50)	98	50/50	120 (50)	94	50/50
3	137 (50)	50/50		135 (50)	99	50/50	132 (50)	96	50/50	127 (50)	93	50/50
4	145 (50)	50/50		143 (50)	99	50/50	139 (50)	96	50/50	134 (50)	92	50/50
5	154 (50)	50/50		150 (50)	97	50/50	145 (50)	94	50/50	139 (50)	90	50/50
6	158 (50)	50/50		154 (50)	97	50/50	148 (50)	94	50/50	142 (50)	90	50/50
7	161 (50)	50/50		158 (50)	98	50/50	153 (50)	95	50/50	146 (50)	91	50/50
8	164 (50)	50/50		160 (50)	98	50/50	154 (50)	94	50/50	148 (50)	90	50/50
9	167 (50)	50/50		162 (50)	97	50/50	157 (50)	94	50/50	151 (50)	90	50/50
10	171 (50)	50/50		166 (50)	97	50/50	161 (50)	94	50/50	153 (50)	89	50/50
11	174 (50)	50/50		169 (50)	97	50/50	164 (50)	94	50/50	156 (50)	90	50/50
12	176 (50)	50/50		171 (50)	97	50/50	165 (50)	94	50/50	158 (50)	90	50/50
13	179 (50)	50/50		173 (50)	97	50/50	168 (50)	94	50/50	161 (50)	90	50/50
14	180 (50)	50/50		175 (50)	97	50/50	169 (50)	94	50/50	162 (50)	90	50/50
18	188 (50)	50/50		182 (50)	97	50/50	175 (50)	93	50/50	166 (50)	88	50/50
22	194 (50)	50/50		190 (50)	98	50/50	180 (50)	93	50/50	171 (50)	88	50/50
26	196 (50)	50/50		192 (50)	98	50/50	183 (50)	93	50/50	173 (50)	88	50/50
30	202 (50)	50/50		198 (50)	98	50/50	188 (50)	93	50/50	178 (50)	88	50/50
34	208 (49)	49/50		205 (50)	99	50/50	193 (50)	93	50/50	181 (50)	87	50/50
38	214 (49)	49/50		211 (50)	99	50/50	198 (50)	93	50/50	185 (50)	86	50/50
42	220 (49)	49/50		217 (50)	99	50/50	202 (50)	92	50/50	188 (50)	85	50/50
46	225 (49)	49/50		219 (49)	97	49/50	205 (50)	91	50/50	190 (50)	84	50/50
50	231 (49)	49/50		226 (49)	98	49/50	210 (50)	91	50/50	193 (50)	84	50/50
54	238 (49)	49/50		231 (49)	97	49/50	214 (50)	90	50/50	195 (50)	82	50/50
58	245 (49)	49/50		240 (48)	98	48/50	220 (50)	90	50/50	200 (50)	82	50/50
62	249 (49)	49/50		241 (48)	97	48/50	222 (50)	89	50/50	201 (50)	81	50/50
66	258 (49)	49/50		250 (46)	97	46/50	227 (50)	88	50/50	207 (50)	80	50/50
70	265 (49)	49/50		258 (46)	97	46/50	234 (50)	88	50/50	212 (50)	80	50/50
74	275 (48)	48/50		268 (45)	97	45/50	244 (50)	89	50/50	220 (49)	80	49/50
78	276 (48)	48/50		271 (45)	98	45/50	246 (49)	89	49/50	223 (49)	81	49/50
82	285 (47)	47/50		281 (45)	99	45/50	255 (49)	89	49/50	231 (49)	81	49/50
86	291 (47)	47/50		286 (45)	98	45/50	261 (49)	90	49/50	235 (49)	81	49/50
90	299 (46)	46/50		297 (43)	99	43/50	263 (49)	88	49/50	240 (49)	80	49/50
94	303 (46)	46/50		300 (43)	99	43/50	270 (47)	89	47/50	242 (47)	80	47/50
98	303 (44)	44/50		304 (41)	100	41/50	273 (45)	90	45/50	244 (44)	81	44/50
102	300 (41)	41/50		300 (41)	100	41/50	271 (44)	90	44/50	244 (43)	81	43/50
104	294 (40)	40/50		299 (40)	102	40/50	272 (43)	93	43/50	241 (43)	82	43/50

< >:No. of effective animals. ( ) :No. of measured animals Av. Wt. : g

TABLE C 3

BODY WEIGHT CHANGES: MALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 1

Group Name	Administration		week									
	0		1		2		3		4		5	6
Control	120 ± 4		152 ± 6		185 ± 7		211 ± 8		232 ± 9		249 ± 10	263 ± 12
444 ppm	120 ± 4		151 ± 6		184 ± 8		209 ± 8		229 ± 10		245 ± 11	258 ± 12
1333 ppm	120 ± 4		150 ± 6		181 ± 8*		205 ± 8**		225 ± 9**		241 ± 9**	252 ± 10**
4000 ppm	120 ± 4		144 ± 5**		172 ± 8**		195 ± 10**		213 ± 10**		230 ± 11**	242 ± 12**

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

Test of Dunnett

(HAN260)

BAIS5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 2

Group Name	Administration week		7		8		9		10		11		12		13	
Control	276 ±	13	287 ±	14	297 ±	14	305 ±	15	314 ±	15	320 ±	16	327 ±	16		
444 ppm	271 ±	14	284 ±	15	294 ±	16	303 ±	16	311 ±	17	318 ±	17	324 ±	17		
1333 ppm	265 ±	10**	278 ±	11**	288 ±	12**	296 ±	12**	304 ±	12**	309 ±	12**	315 ±	13**		
4000 ppm	254 ±	13**	266 ±	14**	275 ±	15**	283 ±	15**	290 ±	15**	293 ±	16**	299 ±	16**		

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 3

Group Name	Administration week		14		18		22		26		30		34		38	
Control	333±	17	354±	19	368±	19	377±	20	392±	20	402±	21	413±	22		
444 ppm	330±	17	350±	18	363±	19	372±	19	387±	19	399±	20	410±	21		
1333 ppm	320±	13**	340±	15**	355±	17**	363±	15**	378±	16**	387±	17**	397±	18**		
4000 ppm	305±	16**	324±	15**	339±	17**	346±	18**	360±	18**	370±	19**	379±	21**		

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

Test of Dunnett

(HAN260)

BAIS 5



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration		week		42		46		50		54		58		62		66	
Control	421 ±	23	428 ±	23	434 ±	24	440 ±	24	445 ±	23	444 ±	24	449 ±	23				
444 ppm	417 ±	22	424 ±	21	431 ±	22	438 ±	22	443 ±	23	442 ±	24	447 ±	24				
1333 ppm	406 ±	18**	413 ±	18**	418 ±	18**	423 ±	17**	427 ±	17**	426 ±	18**	430 ±	19**				
4000 ppm	388 ±	21**	394 ±	21**	399 ±	23**	403 ±	23**	408 ±	25**	411 ±	23**	415 ±	23**				

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 5

Group Name	Administration		week											
	70		74		78		82		86		90		94	
Control	448 ±	24	450 ±	24	446 ±	26	447 ±	27	444 ±	29	439 ±	32	430 ±	46
444 ppm	447 ±	24	447 ±	26	440 ±	33	440 ±	35	438 ±	40	436 ±	46	433 ±	39
1333 ppm	429 ±	20**	430 ±	25**	424 ±	31**	429 ±	27**	430 ±	20*	427 ±	21	419 ±	22
4000 ppm	413 ±	23**	417 ±	24**	414 ±	23**	415 ±	24**	411 ±	24**	407 ±	25**	402 ±	26**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration week					
	98		102		104	
Control	419 ±	41	413 ±	38	407 ±	36
444 ppm	426 ±	41	411 ±	47	412 ±	35
1333 ppm	408 ±	28	398 ±	30	388 ±	37*
4000 ppm	397 ±	26**	385 ±	29**	381 ±	31**

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

Test of Dunnett

(HAN260)

BAIS 5

**TABLE C 4**

**BODY WEIGHT CHANGES: FEMALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 7

Group Name	Administration week		1		2		3		4		5		6	
	0													
Control	97±	3	114±	3	127±	4	137±	4	145±	6	154±	6	158±	7
444 ppm	97±	3	112±	3	126±	4	135±	5	143±	6*	150±	6*	154±	7**
1333 ppm	97±	3	112±	4**	124±	5**	132±	5**	139±	6**	145±	7**	148±	7**
4000 ppm	97±	3	109±	4**	120±	5**	127±	5**	134±	5**	139±	5**	142±	5**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 8

Group Name	Administration week		7		8		9		10		11		12		13	
Control	161 ±	7	164 ±	7	167 ±	8	171 ±	8	174 ±	9	176 ±	9	179 ±	9		
444 ppm	158 ±	7	160 ±	8*	162 ±	8*	166 ±	9*	169 ±	10**	171 ±	10**	173 ±	10*		
1333 ppm	153 ±	8**	154 ±	9**	157 ±	9**	161 ±	9**	164 ±	10**	165 ±	10**	168 ±	10**		
4000 ppm	146 ±	5**	148 ±	6**	151 ±	6**	153 ±	6**	156 ±	6**	158 ±	6**	161 ±	6**		

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration week		18		22		26		30		34		38	
	14													
Control	180 ± 10		188 ± 10		194 ± 12		196 ± 11		202 ± 12		208 ± 13		214 ± 15	
444 ppm	175 ± 11*		182 ± 11*		190 ± 13		192 ± 13		198 ± 14		205 ± 16		211 ± 16	
1333 ppm	169 ± 10**		175 ± 11**		180 ± 11**		183 ± 11**		188 ± 12**		193 ± 14**		198 ± 15**	
4000 ppm	162 ± 6**		166 ± 7**		171 ± 7**		173 ± 7**		178 ± 8**		181 ± 8**		185 ± 9**	

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 10

Group Name	Administration		week											
	42		46		50		54		58		62		66	
Control	220 ±	16	225 ±	17	231 ±	19	238 ±	21	245 ±	23	249 ±	24	258 ±	26
444 ppm	217 ±	19	219 ±	19	226 ±	22	231 ±	22	240 ±	24	241 ±	24	250 ±	25
1333 ppm	202 ±	16**	205 ±	17**	210 ±	19**	214 ±	19**	220 ±	22**	222 ±	22**	227 ±	24**
4000 ppm	188 ±	10**	190 ±	10**	193 ±	11**	195 ±	11**	200 ±	13**	201 ±	14**	207 ±	17**

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

Test of Dunnett

(HAN260)

BAIS 5



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration week		74		78		82		86		90		94	
	70													
Control	265 ± 27		275 ± 27		276 ± 27		285 ± 28		291 ± 28		299 ± 28		303 ± 27	
444 ppm	258 ± 27		268 ± 27		271 ± 26		281 ± 26		286 ± 31		297 ± 26		300 ± 31	
1333 ppm	234 ± 25**		244 ± 26**		246 ± 25**		255 ± 26**		261 ± 27**		263 ± 30**		270 ± 28**	
4000 ppm	212 ± 19**		220 ± 20**		223 ± 20**		231 ± 22**		235 ± 23**		240 ± 23**		242 ± 24**	

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration week					
	98		102		104	
Control	303 ±	28	300 ±	27	294 ±	33
444 ppm	304 ±	28	300 ±	33	299 ±	36
1333 ppm	273 ±	30**	271 ±	35**	272 ±	40**
4000 ppm	244 ±	23**	244 ±	21**	241 ±	23**

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

Test of Dunnett

(HAN260)

BAIS 5

TABLE D 1

FOOD CONSUMPTION CHANGES AND  
SURVIVAL ANIMAL NUMBERS: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrI j [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

MEAN FOOD CONSUMPTION (FC) AND SURVIVAL

PAGE : 1

Week on Study	Control			444 ppm			1333 ppm			4000 ppm		
	Av. FC.	No. of Surviv. <50>		Av. FC.	% of cont. <50>	No. of Surviv.	Av. FC.	% of cont. <50>	No. of Surviv.	Av. FC.	% of cont. <50>	No. of Surviv.
1	13.2 (50)	50/50		13.1 (50)	99	50/50	12.8 (50)	97	50/50	11.4 (50)	86	50/50
2	14.3 (50)	50/50		14.3 (50)	100	50/50	14.0 (50)	98	50/50	12.9 (50)	90	50/50
3	15.0 (50)	50/50		14.8 (50)	99	50/50	14.5 (50)	97	50/50	13.5 (50)	90	50/50
4	15.0 (50)	50/50		14.9 (50)	99	50/50	14.8 (50)	99	50/50	13.8 (50)	92	50/50
5	15.2 (50)	50/50		14.9 (50)	98	50/50	14.9 (50)	98	50/50	14.1 (50)	93	50/50
6	15.0 (50)	50/50		14.7 (50)	98	50/50	14.7 (50)	98	50/50	14.1 (50)	94	50/50
7	15.0 (50)	50/50		14.9 (50)	99	50/50	14.6 (50)	97	50/50	14.0 (50)	93	50/50
8	15.0 (50)	50/50		14.8 (50)	99	50/50	14.8 (50)	99	50/50	14.1 (50)	94	50/50
9	15.1 (50)	50/50		14.9 (50)	99	50/50	15.0 (50)	99	50/50	14.1 (50)	93	50/50
10	15.1 (50)	50/50		14.8 (50)	98	50/50	14.8 (50)	98	50/50	14.0 (50)	93	50/50
11	15.0 (50)	50/50		14.8 (50)	99	50/50	14.8 (50)	99	50/50	14.0 (50)	93	50/50
12	15.0 (50)	50/50		14.8 (50)	99	50/50	14.8 (50)	99	50/50	14.1 (50)	94	50/50
13	15.1 (50)	50/50		14.7 (50)	97	50/50	14.8 (50)	98	50/50	14.0 (50)	93	50/50
14	14.5 (50)	50/50		14.5 (50)	100	50/50	14.5 (50)	100	50/50	13.7 (50)	94	50/50
18	14.8 (50)	50/50		14.5 (50)	98	50/50	14.5 (50)	98	50/50	13.8 (50)	93	50/50
22	14.9 (50)	50/50		14.5 (50)	97	50/50	14.7 (50)	99	50/50	14.2 (50)	95	50/50
26	15.4 (50)	50/50		15.1 (50)	98	50/50	15.1 (50)	98	50/50	14.7 (50)	95	50/50
30	15.4 (50)	50/50		15.1 (50)	98	50/50	15.1 (50)	98	50/50	14.4 (50)	94	50/50
34	15.5 (50)	50/50		15.3 (50)	99	50/50	15.2 (49)	98	50/50	14.7 (49)	95	50/50
38	15.5 (50)	50/50		15.3 (50)	99	50/50	15.3 (50)	99	50/50	14.7 (50)	95	50/50
42	15.5 (50)	50/50		15.7 (50)	101	50/50	15.5 (50)	100	50/50	15.0 (50)	97	50/50
46	15.5 (50)	50/50		15.5 (50)	100	50/50	15.5 (50)	100	50/50	15.0 (50)	97	50/50
50	15.2 (50)	50/50		15.3 (50)	101	50/50	15.1 (50)	99	50/50	14.6 (50)	96	50/50
54	15.7 (50)	50/50		15.7 (50)	100	50/50	15.4 (50)	98	50/50	14.9 (50)	95	50/50
58	15.4 (50)	50/50		15.5 (49)	101	50/50	15.4 (49)	100	49/50	14.8 (50)	96	50/50
62	15.3 (50)	50/50		15.5 (50)	101	50/50	15.4 (48)	101	49/50	15.0 (49)	98	49/50
66	15.7 (50)	50/50		15.9 (47)	101	50/50	15.8 (46)	101	49/50	15.1 (47)	96	49/50
70	15.7 (48)	48/50		15.7 (50)	100	50/50	15.4 (48)	98	49/50	15.0 (48)	96	48/50
74	15.8 (48)	48/50		15.8 (50)	100	50/50	15.7 (47)	99	49/50	15.5 (48)	98	48/50
78	15.8 (48)	48/50		15.6 (46)	99	47/50	15.2 (48)	96	49/50	15.3 (47)	97	47/50
82	16.2 (48)	48/50		15.9 (44)	98	46/50	15.9 (44)	98	46/50	15.5 (47)	96	47/50
86	15.5 (48)	48/50		15.5 (45)	100	45/50	15.6 (43)	101	45/50	14.8 (46)	95	47/50
90	15.7 (47)	48/50		15.7 (43)	100	45/50	15.7 (40)	100	43/50	15.0 (45)	96	46/50
94	15.9 (46)	48/50		15.7 (40)	99	42/50	15.5 (40)	97	43/50	15.1 (44)	95	46/50
98	15.4 (43)	43/50		15.5 (38)	101	39/50	15.0 (36)	97	39/50	14.8 (42)	96	44/50
102	15.3 (39)	39/50		15.3 (39)	100	39/50	14.7 (33)	96	36/50	14.6 (41)	95	43/50
104	15.4 (39)	39/50		15.5 (36)	101	36/50	14.3 (35)	93	36/50	14.8 (40)	96	41/50

< >:No. of effective animals, ( ) :No. of measured animals Av. FC. : g

TABLE D 2

FOOD CONSUMPTION CHANGES AND  
SURVIVAL ANIMAL NUMBERS: FEMALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

MEAN FOOD CONSUMPTION (FC) AND SURVIVAL

PAGE : 2

Week on Study	Control		444 ppm			1333 ppm			4000 ppm		
	Av. FC.	No. of Surviv. <50>	Av. FC.	% of cont. <50>	No. of Surviv.	Av. FC.	% of cont. <50>	No. of Surviv.	Av. FC.	% of cont. <50>	No. of Surviv.
1	10.2 (50)	50/50	10.0 (50)	98	50/50	9.8 (50)	96	50/50	8.9 (50)	87	50/50
2	10.4 (50)	50/50	10.2 (50)	98	50/50	10.1 (50)	97	50/50	9.6 (50)	92	50/50
3	10.5 (50)	50/50	10.2 (50)	97	50/50	10.0 (50)	95	50/50	9.4 (50)	90	50/50
4	10.6 (50)	50/50	10.1 (49)	95	50/50	10.0 (49)	94	50/50	9.5 (50)	90	50/50
5	10.6 (50)	50/50	10.1 (50)	95	50/50	10.1 (50)	95	50/50	9.3 (50)	88	50/50
6	10.2 (50)	50/50	9.8 (50)	96	50/50	9.7 (50)	95	50/50	9.2 (50)	90	50/50
7	9.9 (50)	50/50	9.6 (50)	97	50/50	9.6 (49)	97	50/50	9.1 (49)	92	50/50
8	9.7 (50)	50/50	9.2 (50)	95	50/50	9.3 (50)	96	50/50	8.9 (50)	92	50/50
9	9.8 (50)	50/50	9.4 (50)	96	50/50	9.6 (50)	98	50/50	9.1 (50)	93	50/50
10	9.9 (50)	50/50	9.3 (50)	94	50/50	9.5 (50)	96	50/50	8.9 (50)	90	50/50
11	9.9 (50)	50/50	9.5 (50)	96	50/50	9.5 (50)	96	50/50	9.1 (50)	92	50/50
12	9.7 (50)	50/50	9.3 (50)	96	50/50	9.5 (50)	98	50/50	9.2 (50)	95	50/50
13	9.7 (50)	50/50	9.4 (50)	97	50/50	9.5 (50)	98	50/50	9.2 (50)	95	50/50
14	9.6 (50)	50/50	9.4 (50)	98	50/50	9.4 (50)	98	50/50	9.0 (50)	94	50/50
18	9.7 (50)	50/50	9.4 (49)	97	50/50	9.3 (50)	96	50/50	8.9 (50)	92	50/50
22	9.9 (50)	50/50	9.6 (50)	97	50/50	9.4 (50)	95	50/50	9.0 (50)	91	50/50
26	9.9 (50)	50/50	9.6 (50)	97	50/50	9.5 (50)	96	50/50	9.2 (50)	93	50/50
30	10.2 (50)	50/50	10.1 (50)	99	50/50	9.5 (50)	93	50/50	9.2 (50)	90	50/50
34	10.5 (49)	49/50	10.4 (50)	99	50/50	10.1 (50)	96	50/50	9.4 (50)	90	50/50
38	10.5 (49)	49/50	10.4 (50)	99	50/50	10.3 (50)	98	50/50	9.6 (50)	91	50/50
42	10.8 (49)	49/50	10.6 (50)	98	50/50	10.3 (50)	95	50/50	9.9 (50)	92	50/50
46	11.0 (49)	49/50	10.6 (49)	96	49/50	10.4 (50)	95	50/50	9.9 (50)	90	50/50
50	10.7 (49)	49/50	10.9 (49)	102	49/50	10.7 (50)	100	50/50	10.0 (50)	93	50/50
54	11.7 (46)	49/50	11.1 (48)	95	49/50	11.0 (50)	94	50/50	10.4 (49)	89	50/50
58	11.5 (49)	49/50	11.6 (48)	101	48/50	11.4 (50)	99	50/50	10.7 (50)	93	50/50
62	11.3 (49)	49/50	11.2 (48)	99	48/50	11.3 (50)	100	50/50	10.5 (50)	93	50/50
66	12.0 (48)	49/50	12.1 (46)	101	46/50	11.7 (50)	98	50/50	11.1 (49)	93	50/50
70	12.0 (49)	49/50	12.1 (46)	101	46/50	11.9 (50)	99	50/50	11.2 (50)	93	50/50
74	12.4 (45)	48/50	12.5 (45)	101	45/50	12.2 (49)	98	50/50	11.7 (48)	94	49/50
78	12.1 (48)	48/50	12.2 (45)	101	45/50	11.8 (49)	98	49/50	11.4 (49)	94	49/50
82	12.7 (45)	47/50	13.0 (44)	102	45/50	12.7 (48)	100	49/50	11.9 (48)	94	49/50
86	12.4 (47)	47/50	12.3 (45)	99	45/50	12.4 (49)	100	49/50	11.9 (49)	96	49/50
90	12.7 (46)	46/50	13.0 (43)	102	43/50	12.2 (48)	96	49/50	12.2 (49)	96	49/50
94	13.0 (44)	46/50	13.0 (41)	100	43/50	12.7 (47)	98	47/50	12.0 (45)	92	47/50
98	12.4 (42)	44/50	12.5 (37)	101	41/50	12.8 (43)	103	45/50	12.1 (41)	98	44/50
102	12.4 (37)	41/50	12.8 (39)	103	41/50	12.6 (43)	102	44/50	12.2 (42)	98	43/50
104	12.3 (40)	40/50	12.9 (40)	105	40/50	12.8 (43)	104	43/50	11.9 (43)	97	43/50
< >:No. of effective animals. ( ) :No. of measured animals      Av. FC. : g											

< >:No. of effective animals. ( ) :No. of measured animals Av. FC. : g

TABLE D 3

FOOD CONSUMPTION CHANGES: MALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 1

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	13.2± 0.5	14.3± 0.6	15.0± 0.6	15.0± 0.6	15.2± 0.7	15.0± 0.7	15.0± 0.8
444 ppm	13.1± 0.6	14.3± 0.7	14.8± 0.8	14.9± 0.8	14.9± 0.8	14.7± 0.8	14.9± 1.0
1333 ppm	12.8± 0.6**	14.0± 0.7*	14.5± 0.8**	14.8± 0.7	14.9± 0.7	14.7± 0.6	14.6± 0.7*
4000 ppm	11.4± 0.5**	12.9± 0.8**	13.5± 0.8**	13.8± 0.8**	14.1± 0.8**	14.1± 0.8**	14.0± 0.9**

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

Test of Dunnett

(HAN260)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 2

Group Name	Administration week					
	8	9	10	11	12	13
Control	15.0± 0.8	15.1± 0.8	15.1± 0.8	15.0± 0.8	15.0± 0.8	15.1± 0.8
444 ppm	14.8± 1.0	14.9± 0.9	14.8± 0.8	14.8± 0.9	14.8± 0.8	14.7± 0.8
1333 ppm	14.8± 0.7	15.0± 0.8	14.8± 0.8	14.8± 0.7	14.8± 0.8	14.8± 0.7
4000 ppm	14.1± 1.0**	14.1± 0.8**	14.0± 0.9**	14.0± 0.8**	14.1± 0.8**	14.0± 0.8**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 3

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	14.8 ± 0.9	14.9 ± 0.8	15.4 ± 0.7	15.4 ± 1.0	15.5 ± 1.0	15.5 ± 0.9	15.5 ± 0.8
444 ppm	14.5 ± 0.8	14.5 ± 0.8*	15.1 ± 0.8	15.1 ± 0.9	15.3 ± 0.9	15.3 ± 1.1	15.7 ± 1.0
1333 ppm	14.5 ± 0.9	14.7 ± 0.9	15.1 ± 0.8	15.1 ± 0.9	15.2 ± 0.8	15.3 ± 0.9	15.5 ± 0.9
4000 ppm	13.8 ± 0.7**	14.2 ± 0.8**	14.7 ± 0.9**	14.4 ± 1.0**	14.7 ± 0.8**	14.7 ± 0.9**	15.0 ± 0.9*

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 4

Group Name	Administration week													
	46		50		54		58		62		66		70	
Control	15.5	± 0.8	15.2	± 0.8	15.7	± 0.7	15.4	± 0.6	15.3	± 0.9	15.7	± 1.3	15.7	± 0.8
444 ppm	15.5	± 1.1	15.3	± 0.9	15.7	± 0.9	15.5	± 1.1	15.5	± 1.0	15.9	± 1.0	15.7	± 1.0
1333 ppm	15.5	± 0.9	15.1	± 0.8	15.4	± 1.2	15.4	± 0.8	15.4	± 0.9	15.8	± 0.7	15.4	± 0.7
4000 ppm	15.0	± 0.8*	14.6	± 0.9**	14.9	± 0.9**	14.8	± 1.2**	15.0	± 0.9	15.1	± 0.9**	15.0	± 0.8**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]  
 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
Control	15.8± 1.0	15.8± 1.4	16.2± 1.0	15.5± 1.3	15.7± 0.9	15.9± 2.6
444 ppm	15.8± 1.1	15.6± 1.6	15.9± 1.0	15.5± 1.4	15.7± 1.3	15.7± 1.8
1333 ppm	15.7± 0.6	15.2± 1.8	15.9± 1.1	15.6± 1.0	15.7± 1.1	15.5± 1.2*
4000 ppm	15.5± 0.9	15.3± 1.1**	15.5± 0.9**	14.8± 0.9**	15.0± 1.1*	15.1± 1.2**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration week	
	102	104
Control	15.3 ± 1.3	15.4 ± 1.4
444 ppm	15.3 ± 2.1	15.5 ± 1.6
1333 ppm	14.7 ± 1.7	14.3 ± 3.0
4000 ppm	14.6 ± 1.2*	14.8 ± 1.5

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

Test of Dunnett

(HAN260)

BAIS 5

**TABLE D 4**

**FOOD CONSUMPTION CHANGES: FEMALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 7

Group Name	Administration week						
	1	2	3	4	5	6	7
Control	10.2± 0.4	10.4± 0.4	10.5± 0.5	10.6± 0.5	10.6± 0.6	10.2± 0.5	9.9± 0.6
444 ppm	10.0± 0.4**	10.2± 0.5	10.2± 0.6*	10.1± 0.7**	10.1± 0.7**	9.8± 0.7**	9.6± 0.7*
1333 ppm	9.8± 0.4**	10.1± 0.6**	10.0± 0.6**	10.0± 0.7**	10.1± 0.8**	9.7± 0.8**	9.6± 0.7*
4000 ppm	8.9± 0.6**	9.6± 0.6**	9.4± 0.6**	9.5± 0.7**	9.3± 0.4**	9.2± 0.5**	9.1± 0.5**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 8

Group Name	Administration week						
	8	9	10	11	12	13	14
Control	9.7± 0.6	9.8± 0.5	9.9± 0.6	9.9± 0.6	9.7± 0.6	9.7± 0.7	9.6± 0.6
444 ppm	9.2± 0.7**	9.4± 0.8**	9.3± 0.8**	9.5± 0.8**	9.3± 0.8**	9.4± 0.8*	9.4± 0.8*
1333 ppm	9.3± 0.7*	9.6± 0.7	9.5± 0.7**	9.5± 0.8*	9.5± 0.7	9.5± 0.7	9.4± 0.7
4000 ppm	8.9± 0.5**	9.1± 0.7**	8.9± 0.6**	9.1± 0.5**	9.2± 0.6**	9.2± 0.7**	9.0± 0.5**

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

Test of Dunnett

(HAN260)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 9

Group Name	Administration week						
	18	22	26	30	34	38	42
Control	9.7± 0.6	9.9± 0.8	9.9± 0.8	10.2± 1.1	10.5± 0.9	10.5± 1.0	10.8± 1.1
444 ppm	9.4± 0.8*	9.6± 0.9*	9.6± 0.8	10.1± 1.3	10.4± 1.0	10.4± 1.1	10.6± 1.1
1333 ppm	9.3± 0.7*	9.4± 0.7**	9.5± 0.6	9.5± 0.7**	10.1± 0.8	10.3± 0.9	10.3± 0.9
4000 ppm	8.9± 0.6**	9.0± 0.5**	9.2± 0.5**	9.2± 0.7**	9.4± 0.7**	9.6± 0.7**	9.9± 0.7**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration week													
	46		50		54		58		62		66		70	
Control	11.0±	1.3	10.7±	0.8	11.7±	1.4	11.5±	1.2	11.3±	1.2	12.0±	1.1	12.0±	1.0
444 ppm	10.6±	1.0	10.9±	1.4	11.1±	1.2	11.6±	1.2	11.2±	1.6	12.1±	1.3	12.1±	1.3
1333 ppm	10.4±	1.0*	10.7±	1.0	11.0±	1.0*	11.4±	1.2	11.3±	1.2	11.7±	1.5	11.9±	1.2
4000 ppm	9.9±	0.7**	10.0±	0.8**	10.4±	0.9**	10.7±	1.0**	10.5±	1.0**	11.1±	1.1**	11.2±	1.2**

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 UNIT : g  
 REPORT TYPE : A1 104  
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 11

Group Name	Administration week						
	74	78	82	86	90	94	98
Control	12.4± 1.1	12.1± 1.5	12.7± 1.1	12.4± 1.4	12.7± 1.1	13.0± 1.3	12.4± 2.0
444 ppm	12.5± 1.1	12.2± 1.2	13.0± 1.2	12.3± 2.3	13.0± 1.2	13.0± 1.3	12.5± 1.5
1333 ppm	12.2± 1.3	11.8± 1.2	12.7± 1.2	12.4± 1.2	12.2± 2.1	12.7± 2.0	12.8± 1.1
4000 ppm	11.7± 1.1**	11.4± 1.1*	11.9± 1.2**	11.9± 1.4	12.2± 1.3*	12.0± 1.9**	12.1± 1.3

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

Test of Dunnett

(HAN260)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : g  
REPORT TYPE : A1 104  
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration week	
	102	104
Control	12.4± 1.6	12.3± 2.8
444 ppm	12.8± 1.7	12.9± 2.2
1333 ppm	12.6± 1.5	12.8± 1.5
4000 ppm	12.2± 1.5	11.9± 2.0*

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

Test of Dunnett

(HAN260)

BAIS 5

TABLE E 1

CHEMICAL INTAKE CHANGES: MALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 1

Group Name	Administration (weeks)		1		2		3		4		5		6		7	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	39±	1	34±	1	32±	1	29±	1	27±	1	25±	1	24±	1		
1333 ppm	114±	3	103±	3	94±	3	87±	2	82±	2	78±	2	74±	3		
4000 ppm	318±	11	299±	10	277±	9	260±	10	246±	9	233±	9	220±	7		

(HAN300)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 2

Group Name	Administration (weeks)		8		9		10		11		12		13		14	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	23±	1	22±	1	22±	1	21±	1	21±	1	20±	1	19±	1		
1333 ppm	71±	3	69±	2	67±	2	65±	2	64±	2	62±	2	60±	3		
4000 ppm	212±	8	205±	7	198±	7	194±	7	193±	9	187±	6	180±	5		

(HAN300)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 3

Group Name	Administration		(weeks)											
	18		22		26		30		34		38		42	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	18±	1	18±	1	18±	1	17±	1	17±	1	17±	1	17±	1
1333 ppm	57±	2	55±	2	55±	2	53±	3	52±	2	51±	2	51±	2
4000 ppm	170±	6	168±	6	170±	7	160±	9	159±	5	155±	5	155±	7

(HAN300)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 4

Group Name	Administration (weeks)		50		54		58		62		66		70	
	46													
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	16±	1	16±	1	16±	1	16±	1	16±	1	16±	1	16±	1
1333 ppm	50±	3	48±	2	49±	4	48±	2	48±	3	49±	2	48±	3
4000 ppm	153±	6	147±	5	148±	7	145±	10	146±	8	146±	7	146±	6

(HAN300)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 5

Group Name	Administration (weeks)		74		78		82		86		90		94		98	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	16±	1	16±	1	16±	1	16±	2	16±	1	16±	2	16±	2	16±	1
1333 ppm	49±	3	48±	4	49±	2	48±	4	49±	4	49±	3	49±	3	49±	5
4000 ppm	149±	6	148±	10	149±	7	144±	7	148±	9	150±	10	149±	10	149±	10

(HAN300)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 6

Group Name	Administration (weeks)			
	102		104	
Control	0±	0	0±	0
444 ppm	17±	3	17±	2
1333 ppm	49±	5	49±	10
4000 ppm	151±	13	154±	16

(HAN300)

BAIS 5

**TABLE E 2**

**CHEMICAL INTAKE CHANGES: FEMALE**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 7

Group Name	Administration (weeks)													
	1		2		3		4		5		6		7	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	39±	1	36±	2	34±	2	32±	2	30±	2	28±	2	27±	2
1333 ppm	118±	4	108±	4	101±	4	96±	5	92±	5	87±	5	84±	4
4000 ppm	328±	18	320±	16	295±	14	284±	20	268±	11	258±	13	250±	10

(HAN300)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 8

Group Name	Administration (weeks)		8		9		10		11		12		13		14	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	26±	1	26±	2	25±	1	25±	1	24±	1	24±	1	24±	1	24±	1
1333 ppm	80±	4	81±	4	79±	4	78±	4	76±	4	76±	4	74±	4	74±	4
4000 ppm	241±	11	240±	15	234±	12	232±	11	232±	11	228±	16	222±	10	222±	10

(HAN300)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 9

Group Name	Administration (weeks)													
	18		22		26		30		34		38		42	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	23±	1	22±	1	22±	1	23±	2	23±	2	22±	1	22±	1
1333 ppm	71±	4	69±	3	70±	4	68±	3	70±	4	69±	4	68±	5
4000 ppm	213±	10	211±	9	213±	8	206±	13	208±	13	207±	11	210±	13

(HAN300)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 UNIT : mg/kg/day  
 REPORT TYPE : A1 104  
 SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
 ALL ANIMALS

PAGE : 10

Group Name	Administration (weeks)		50		54		58		62		66		70	
	46													
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	21±	2	21±	2	21±	2	21±	2	21±	3	22±	2	21±	2
1333 ppm	67±	4	68±	5	68±	5	69±	5	68±	6	69±	7	68±	7
4000 ppm	210±	14	207±	15	214±	21	214±	17	210±	18	215±	17	213±	18

(HAN300)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 11

Group Name	Administration (weeks)		74		78		82		86		90		94		98	
Control	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0	0±	0
444 ppm	21±	2	20±	2	21±	2	19±	3	19±	2	19±	1	19±	2	19±	2
1333 ppm	67±	7	64±	7	67±	6	64±	8	62±	11	63±	11	63±	7	63±	7
4000 ppm	212±	17	206±	18	207±	17	204±	22	204±	20	199±	28	198±	20	198±	20

(HAN300)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
UNIT : mg/kg/day  
REPORT TYPE : A1 104  
SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)  
ALL ANIMALS

PAGE : 12

Group Name	Administration (weeks)			
	102		104	
Control	0±	0	0±	0
444 ppm	19±	2	19±	2
1333 ppm	62±	6	63±	7
4000 ppm	202±	24	197±	29

(HAN300)

BAIS 5

TABLE F 1

HEMATOLOGY: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 MEASURE TIME : 1  
 SEX : MALE

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 <sup>6</sup> /μl	HEMOGLOBIN g/dl	HEMATOCRIT %	MCV fl	MCH pg	MCHC g/dl	PLATELET 10 <sup>3</sup> /μl
Control	39	8.21 ± 1.45	13.7 ± 2.5	40.7 ± 6.7	49.8 ± 2.9	16.7 ± 1.1	33.6 ± 1.5	921 ± 289
444 ppm	36	7.82 ± 1.73	13.2 ± 2.8	39.3 ± 7.3	51.5 ± 8.3	17.2 ± 2.1	33.4 ± 1.8	924 ± 319
1333 ppm	35	7.93 ± 1.68	13.5 ± 2.4	40.3 ± 5.9	52.3 ± 9.5	17.3 ± 2.0	33.3 ± 1.8	899 ± 282
4000 ppm	41	8.51 ± 1.25	14.0 ± 2.3	41.6 ± 5.9	49.0 ± 2.7	16.4 ± 1.3	33.5 ± 1.5	906 ± 181

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
MEASURE. TIME : 1  
SEX : MALE

HEMATOLOGY (SUMMARY)  
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	RETICULOCYTE %	
Control	39	3.6±	2.8
444 ppm	36	5.8±	9.1
1333 ppm	35	4.7±	6.5
4000 ppm	41	3.4±	2.5

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

Test of Dunnett

(HCL070)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 MEASURE TIME : 1  
 SEX : MALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

PAGE : 3

Group Name	NO. of Animals	WBC 10 <sup>3</sup> /μl		Differential NEUTRO		WBC (%) LYMPHO		MONO		EOSINO		BASO		OTHER	
Control	39	7.65±	7.24	55±	13	38±	13	4±	1	1±	1	0±	0	1±	1
444 ppm	36	7.48±	10.71	49±	10	44±	10	4±	1	1±	1	0±	0	2±	1
1333 ppm	35	26.80±	73.53	49±	16	39±	14	4±	2	1±	1	0±	1	7±	22
4000 ppm	41	5.99±	2.38	52±	7	42±	7	4±	1	1±	1	0±	0	1±	1

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 5

TABLE F 2

HEMATOLOGY: FEMALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
MEASURE. TIME : 1  
SEX : FEMALE

HEMATOLOGY (SUMMARY)  
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

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	39	7.93±	1.82	14.4±	3.2	41.5±	8.3	54.0±	8.5	18.4±	2.1	34.3±	2.5	659±	125
444 ppm	39	8.37±	0.42	15.2±	0.8	43.6±	2.3	52.0±	1.0	18.2±	0.4	34.9±	0.6	673±	102
1333 ppm	43	8.31±	0.84	15.1±	1.2	43.3±	2.9	52.5±	3.8	18.3±	0.9	34.8±	0.9	669±	93
4000 ppm	42	8.26±	0.76	15.0±	1.0	42.8±	2.6	52.2±	4.2*	18.2±	1.1	35.0±	0.7	695±	95

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

Test of Dunnett

(HCL070)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
MEASURE TIME : 1  
SEX : FEMALE REPORT TYPE : A1

HEMATOLOGY (SUMMARY)  
ALL ANIMALS (105W)

PAGE : 5

Group Name	NO. of Animals	RETICULOCYTE %	
Control	39	3.5±	4.9
444 ppm	39	2.2±	0.5
1333 ppm	43	2.7±	2.6
4000 ppm	42	2.7±	4.1

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

Test of Dunnett

(HCL070)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
 MEASURE TIME : 1  
 SEX : FEMALE

HEMATOLOGY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	WBC 10 <sup>3</sup> /μl		Differential NEUTRO		WBC (%) LYMPHO		MONO		EOSINO		BASO		OTHER	
Control	39	11.14±	33.02	40±	12	51±	14	4±	2	1±	1	0±	1	4±	15
444 ppm	39	2.85±	1.41	42±	8	51±	8	4±	1	2±	1	0±	0	1±	0
1333 ppm	43	3.08±	2.79	45±	14	49±	14	4±	1	2±	1	0±	0	1±	0
4000 ppm	42	3.33±	3.92	39±	10	54±	10	3±	1	2±	1	0±	1	1±	2

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS5

**TABLE G 1**

**BIOCHEMISTRY: MALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
MEASURE TIME : 1  
SEX : MALE

BIOCHEMISTRY (SUMMARY)  
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	39	6.8±	0.4	2.8±	0.3	0.7±	0.1	0.15±	0.06	147±	25	183±	56	104±	80
444 ppm	36	6.9±	0.4	2.9±	0.2	0.7±	0.1	0.95±	4.79	143±	25	193±	63	104±	65
1333 ppm	35	6.8±	0.6	2.8±	0.3	0.7±	0.1	0.31±	0.72	140±	29	205±	83	130±	87
4000 ppm	41	6.8±	0.3	2.9±	0.3	0.7±	0.1	0.14±	0.04	149±	20	171±	35	81±	38

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

Test of Dunnett

(HCL074)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
 MEASURE TIME : 1  
 SEX : MALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST U/L		ALT U/L		LDH U/L		ALP U/L		G-GTP U/L		CK U/L	
Control	39	259±	88	100±	86	40±	25	119±	41	345±	185	6±	4	93±	23
444 ppm	36	284±	149	128±	223	51±	64	133±	91	321±	219	5±	3	97±	35
1333 ppm	35	301±	141	177±	342	49±	53	204±	280	375±	326	8±	8	193±	379
4000 ppm	41	239±	46	101±	59	37±	14	129±	50	346±	93	8±	4*	99±	45

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

Test of Dunnett

(HCL074)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
 MEASURE TIME : 1  
 SEX : MALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	UREA NITROGEN mg/dl		CREATININE mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
Control	39	18.7±	3.9	0.6±	0.1	142±	1	3.8±	0.3	107±	2	10.6±	0.4	4.0±	0.5
444 ppm	36	18.8±	2.7	0.6±	0.1	142±	1	3.7±	0.4	106±	2	10.7±	0.4	4.2±	0.6
1333 ppm	35	19.5±	4.5	0.7±	0.1	142±	1	3.9±	0.5	106±	2	10.7±	0.5	4.4±	0.8
4000 ppm	41	20.8±	3.2**	0.6±	0.1	142±	1	3.8±	0.3	106±	1	10.5±	0.3	4.2±	0.6

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 5

**TABLE G 2**

**BIOCHEMISTRY: FEMALE**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 MEASURE. TIME : 1  
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	40	6.9±	0.7	3.4±	0.4	1.0±	0.1	0.58±	2.03	143±	20	148±	54	110±	109
444 ppm	39	7.0±	0.4	3.5±	0.3	1.0±	0.1	0.11±	0.02	152±	20	137±	31	97±	61
1333 ppm	43	7.0±	0.5	3.5±	0.3	1.0±	0.1	0.13±	0.06	146±	17	146±	42	84±	59
4000 ppm	42	7.2±	0.4	3.6±	0.3	1.0±	0.1	0.13±	0.10	145±	22	139±	23	49±	37**

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
MEASURE. TIME : 1  
SEX : FEMALE

BIOCHEMISTRY (SUMMARY)  
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	PHOSPHOLIPID mg/dl		AST U/L		ALT U/L		LDH U/L		ALP U/L		G-GTP U/L		CK U/L	
Control	40	257±	92	251±	649	68±	72	288±	627	325±	638	3±	4	151±	293
444 ppm	39	242±	58	130±	78	57±	40	161±	54	165±	49	2±	1	91±	28
1333 ppm	43	253±	70	138±	79	56±	23	149±	57	192±	138	3±	2	96±	39
4000 ppm	42	241±	41	143±	107	57±	38	149±	74	171±	73	2±	1	89±	22

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

Test of Dunnett

(HCL074)

BAIS 5

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 MEASURE. TIME : 1  
 SEX : FEMALE

BIOCHEMISTRY (SUMMARY)  
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	UREA NITROGEN mg/dl		CREATININE mg/dl		SODIUM mEq/l		POTASSIUM mEq/l		CHLORIDE mEq/l		CALCIUM mg/dl		INORGANIC PHOSPHORUS mg/dl	
Control	40	22.6±	31.4	0.6±	0.3	141±	2	3.8±	0.9	106±	3	10.6±	0.4	4.2±	2.5
444 ppm	39	17.4±	4.8	0.6±	0.1	141±	1	3.6±	0.3	105±	2	10.6±	0.4	4.0±	0.9
1333 ppm	43	18.4±	5.3	0.6±	0.1	142±	1	3.5±	0.4	105±	2	10.6±	0.5	4.0±	0.9
4000 ppm	42	18.5±	3.6*	0.6±	0.1	141±	2	3.7±	0.4	105±	2	10.6±	0.5	4.1±	0.7

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

\*\* :  $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 5

TABLE H 1

URINALYSIS: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
 MEASURE TIME : 1  
 SEX : MALE REPORT TYPE : A1

URINALYSIS

PAGE : 1

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Bilirubin				CHI		
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		—	±	+	2+	3+		4+	—	±	+	2+		3+	4+	—	±	+		2+	3+	4+	—		+	2+
Control	39	0	1	7	7	18	4	2		0	0	0	4	28	7		39	0	0	0	0	0		34	2	3	0	0	0		38	1	0	0
444 ppm	36	0	0	4	8	17	5	2		0	0	0	4	29	3		36	0	0	0	0	0		32	3	1	0	0	0		32	3	0	1
1333 ppm	36	0	1	6	8	14	5	2		0	0	1	3	27	5		36	0	0	0	0	0		30	3	2	1	0	0		32	2	0	2
4000 ppm	42	0	1	5	7	13	6	10		0	0	0	7	34	1		42	0	0	0	0	0		34	5	3	0	0	0		39	2	0	1

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

Test of CHI SQUARE

(HCL101)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
MEASURE. TIME : 1  
SEX : MALE REPORT TYPE : A1

URINALYSIS

PAGE : 2

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		-	±	+	2+	3+		±	+	2+	3+	4+	
Control	39	39	0	0	0	0	0	39	0	0	0	0	0
444 ppm	36	36	0	0	0	0	0	35	1	0	0	0	0
1333 ppm	36	35	1	0	0	0	0	35	0	1	0	0	0
4000 ppm	42	41	0	0	1	0	0	42	0	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS5

## TABLE H 2

### URINALYSIS: FEMALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
MEASURE. TIME : 1  
SEX : FEMALE REPORT TYPE : A1

URINALYSIS

PAGE : 3

Group Name	NO. of Animals	pH							CHI	Protein					CHI	Glucose					CHI	Ketone body					CHI	Bilirubin				CHI		
		5.0	6.0	6.5	7.0	7.5	8.0	8.5		—	±	+	2+	3+		4+	—	±	+	2+		3+	4+	—	±	+		2+	3+	4+	—		+	2+
Control	41	0	5	4	6	18	6	2		0	0	2	14	24	1		41	0	0	0	0	0		27	14	0	0	0	0		38	1	0	2
444 ppm	40	0	1	5	6	19	7	2		0	0	2	13	23	2		40	0	0	0	0	0		20	19	1	0	0	0		40	0	0	0
1333 ppm	43	0	2	3	11	16	9	2		0	0	5	19	18	1		43	0	0	0	0	0		24	19	0	0	0	0		43	0	0	0
4000 ppm	43	0	4	3	8	13	9	6		0	0	13	18	12	0	**	43	0	0	0	0	0		23	20	0	0	0	0		43	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
MEASURE. TIME : 1  
SEX : FEMALE

URINALYSIS

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	Occult blood					Urobilinogen				
		-	±	+	2+	3+	±	+	2+	3+	4+
Control	41	40	0	0	1	0	39	2	0	0	0
444 ppm	40	40	0	0	0	0	40	0	0	0	0
1333 ppm	43	42	1	0	0	0	43	0	0	0	0
4000 ppm	43	43	0	0	0	0	43	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS 5



**TABLE I 1**

**GROSS FINDINGS: MALE: ALL ANIMALS**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
skin/app	nodule		3 ( 6)	3 ( 6)	3 ( 6)	1 ( 2)
	scab		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
subcutis	edema		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	jaundice		1 ( 2)	1 ( 2)	2 ( 4)	0 ( 0)
	mass		12 ( 24)	7 ( 14)	6 ( 12)	10 ( 20)
lung	red		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		1 ( 2)	2 ( 4)	0 ( 0)	1 ( 2)
	red zone		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	brown zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	edema		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		2 ( 4)	1 ( 2)	4 ( 8)	2 ( 4)
lymph node	enlarged		1 ( 2)	1 ( 2)	7 ( 14)	0 ( 0)
spleen	enlarged		4 ( 8)	10 ( 20)	5 ( 10)	3 ( 6)
	white zone		0 ( 0)	3 ( 6)	3 ( 6)	0 ( 0)
	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
heart	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
oral cavity	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
tongue	nodule		0 ( 0)	0 ( 0)	1 ( 2)	4 ( 8)
salivary gl	nodule		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)
stomach	gas		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	forestomach:ulcer		0 ( 0)	2 ( 4)	1 ( 2)	0 ( 0)
	forestomach:nodule		1 ( 2)	1 ( 2)	2 ( 4)	11 ( 22)

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
stomach	forestomach:thick		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	glandular stomach:ulcer		0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)
	glandular stomach:nodule		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
	glandular stomach:thick		0 ( 0)	1 ( 2)	1 ( 2)	1 ( 2)
small intes	nodule		0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)
	gas		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
large intes	red zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	dilated		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	gas		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	thick		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
liver	enlarged		0 ( 0)	3 ( 6)	2 ( 4)	0 ( 0)
	white zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 2)	2 ( 4)	1 ( 2)
	rough		0 ( 0)	1 ( 2)	1 ( 2)	1 ( 2)
	herniation		4 ( 8)	3 ( 6)	4 ( 8)	7 ( 14)
kidney	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	cyst		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	deformed		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	granular		10 ( 20)	7 ( 14)	8 ( 16)	4 ( 8)
urin bladd	red zone		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	urine:marked retention		1 ( 2)	2 ( 4)	0 ( 0)	1 ( 2)

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
pituitary	enlarged		11 ( 22)	14 ( 28)	8 ( 16)	4 ( 8)
	red zone		7 ( 14)	9 ( 18)	6 ( 12)	9 ( 18)
	nodule		4 ( 8)	0 ( 0)	2 ( 4)	1 ( 2)
	cyst		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)
thyroid	enlarged		4 ( 8)	5 ( 10)	8 ( 16)	2 ( 4)
	nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
adrenal	enlarged		4 ( 8)	1 ( 2)	1 ( 2)	2 ( 4)
testis	red		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		31 ( 62)	26 ( 52)	31 ( 62)	36 ( 72)
brain	red zone		1 ( 2)	2 ( 4)	1 ( 2)	1 ( 2)
	brown zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	black zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
spinal cord	red zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	brown zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
eye	small		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	turbid		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	white		3 ( 6)	4 ( 8)	2 ( 4)	5 ( 10)
	red		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
Harder gl	enlarged		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
Zymbal gl	nodule		1 ( 2)	0 ( 0)	1 ( 2)	2 ( 4)
muscle	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
bone	nodule		0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
pleura	nodule		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
mediastinum	mass		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
peritoneum	nodule		1 ( 2)	1 ( 2)	1 ( 2)	0 ( 0)
	thick		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
abdominal c	hemorrhage		0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)
	ascites		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
thoracic ca	pleural fluid		2 ( 4)	0 ( 0)	0 ( 0)	2 ( 4)
other	upper jaw:nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
whole body	anemic		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)

(HPT080)

BAIS 5

TABLE I 2

GROSS FINDINGS: MALE: DEAD AND MORIBUND ANIMALS

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control 11 (%)	444 ppm 14 (%)	1333 ppm 14 (%)	4000 ppm 9 (%)
skin/app	nodule		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
subcutis	edema		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
	jaundice		1 ( 9)	0 ( 0)	2 ( 14)	0 ( 0)
	mass		4 ( 36)	1 ( 7)	3 ( 21)	3 ( 33)
lung	red		2 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)
	red zone		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	brown zone		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
	edema		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)
	nodule		0 ( 0)	0 ( 0)	2 ( 14)	1 ( 11)
lymph node	enlarged		1 ( 9)	1 ( 7)	1 ( 7)	0 ( 0)
spleen	enlarged		2 ( 18)	5 ( 36)	2 ( 14)	2 ( 22)
	white zone		0 ( 0)	2 ( 14)	1 ( 7)	0 ( 0)
	nodule		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
heart	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
tongue	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
stomach	gas		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
	forestomach:ulcer		0 ( 0)	2 ( 14)	1 ( 7)	0 ( 0)
	glandular stomach:ulcer		0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)
small intes	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	gas		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
large intes	red zone		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 11 (%)	444 ppm 14 (%)	1333 ppm 14 (%)	4000 ppm 9 (%)
large intes	dilated		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	gas		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
	thick		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
liver	enlarged		0 ( 0)	3 ( 21)	1 ( 7)	0 ( 0)
	rough		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
	herniation		1 ( 9)	1 ( 7)	1 ( 7)	1 ( 11)
kidney	granular		2 ( 18)	0 ( 0)	1 ( 7)	0 ( 0)
urin bladd	red zone		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
	urine:marked retention		1 ( 9)	2 ( 14)	0 ( 0)	1 ( 11)
pituitary	enlarged		6 ( 55)	6 ( 43)	4 ( 29)	1 ( 11)
	red zone		1 ( 9)	2 ( 14)	0 ( 0)	2 ( 22)
	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
thyroid	enlarged		0 ( 0)	1 ( 7)	1 ( 7)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
adrenal	enlarged		3 ( 27)	0 ( 0)	0 ( 0)	0 ( 0)
testis	red		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)
	nodule		1 ( 9)	2 ( 14)	1 ( 7)	2 ( 22)
brain	red zone		1 ( 9)	2 ( 14)	1 ( 7)	1 ( 11)
	brown zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)
	black zone		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
spinal cord	red zone		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
	brown zone		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control 11 (%)	444 ppm 14 (%)	1333 ppm 14 (%)	4000 ppm 9 (%)
eye	small		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
	turbid		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	white		2 ( 18)	1 ( 7)	0 ( 0)	0 ( 0)
	red		2 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)
Harder gl	enlarged		0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)
Zymbal gl	nodule		1 ( 9)	0 ( 0)	1 ( 7)	2 ( 22)
muscle	nodule		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
bone	nodule		0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)
pleura	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
mediastinum	mass		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
peritoneum	nodule		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
	thick		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)
abdominal c	hemorrhage		0 ( 0)	1 ( 7)	1 ( 7)	0 ( 0)
thoracic ca	pleural fluid		2 ( 18)	0 ( 0)	0 ( 0)	2 ( 22)
whole body	anemic		0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)

(HPT080)

BAIS 5

**TABLE I 3**

**GROSS FINDINGS: MALE: SACRIFICED ANIMALS**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

GROSS FINDINGS (SUMMARY)  
SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control 39 (%)	444 ppm 36 (%)	1333 ppm 36 (%)	4000 ppm 41 (%)
skin/app	nodule		3 ( 8)	2 ( 6)	3 ( 8)	1 ( 2)
	scab		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
subcutis	jaundice		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	mass		8 ( 21)	6 ( 17)	3 ( 8)	7 ( 17)
lung	white zone		1 ( 3)	2 ( 6)	0 ( 0)	0 ( 0)
	nodule		2 ( 5)	1 ( 3)	2 ( 6)	1 ( 2)
lymph node	enlarged		0 ( 0)	0 ( 0)	6 ( 17)	0 ( 0)
spleen	enlarged		2 ( 5)	5 ( 14)	3 ( 8)	1 ( 2)
	white zone		0 ( 0)	1 ( 3)	2 ( 6)	0 ( 0)
oral cavity	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
tongue	nodule		0 ( 0)	0 ( 0)	0 ( 0)	4 ( 10)
salivary gl	nodule		1 ( 3)	0 ( 0)	0 ( 0)	1 ( 2)
stomach	forestomach:nodule		1 ( 3)	1 ( 3)	2 ( 6)	11 ( 27)
	forestomach:thick		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	glandular stomach:nodule		0 ( 0)	0 ( 0)	1 ( 3)	1 ( 2)
	glandular stomach:thick		0 ( 0)	1 ( 3)	1 ( 3)	1 ( 2)
small intes	nodule		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	white zone		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 3)	2 ( 6)	1 ( 2)
	rough		0 ( 0)	0 ( 0)	1 ( 3)	1 ( 2)
	herniation		3 ( 8)	2 ( 6)	3 ( 8)	6 ( 15)

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

GROSS FINDINGS (SUMMARY)  
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control 39 (%)	444 ppm 36 (%)	1333 ppm 36 (%)	4000 ppm 41 (%)
kidney	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	cyst		0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)
	deformed		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	granular		8 ( 21)	7 ( 19)	7 ( 19)	4 ( 10)
urin bladd	nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
pituitary	enlarged		5 ( 13)	8 ( 22)	4 ( 11)	3 ( 7)
	red zone		6 ( 15)	7 ( 19)	6 ( 17)	7 ( 17)
	nodule		4 ( 10)	0 ( 0)	1 ( 3)	1 ( 2)
	cyst		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)
thyroid	enlarged		4 ( 10)	4 ( 11)	7 ( 19)	2 ( 5)
adrenal	enlarged		1 ( 3)	1 ( 3)	1 ( 3)	2 ( 5)
testis	nodule		30 ( 77)	24 ( 67)	30 ( 83)	34 ( 83)
eye	white		1 ( 3)	3 ( 8)	2 ( 6)	5 ( 12)
pleura	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
peritoneum	nodule		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)
abdominal c	ascites		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
other	upper jaw:nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)

**TABLE I 4**

**GROSS FINDINGS: FEMALE: ALL ANIMALS**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
skin/app	nodule		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
	mass		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	scab		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
subcutis	jaundice		2 ( 4)	0 ( 0)	1 ( 2)	1 ( 2)
	mass		16 ( 32)	13 ( 26)	9 ( 18)	6 ( 12)
nasal cavit	red zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
lung	white zone		3 ( 6)	0 ( 0)	1 ( 2)	1 ( 2)
	red zone		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
lymph node	enlarged		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
spleen	enlarged		8 ( 16)	5 ( 10)	8 ( 16)	2 ( 4)
	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
heart	enlarged		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
tongue	nodule		2 ( 4)	0 ( 0)	1 ( 2)	2 ( 4)
stomach	forestomach:ulcer		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
	forestomach:nodule		0 ( 0)	1 ( 2)	2 ( 4)	4 ( 8)
	forestomach:thick		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
	glandular stomach:ulcer		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	glandular stomach:nodule		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
	glandular stomach:white zone		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
	white zone		0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)
	nodule		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	rough		1 ( 2)	1 ( 2)	4 ( 8)	3 ( 6)
	herniation		6 ( 12)	8 ( 16)	5 ( 10)	11 ( 22)
pancreas	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
kidney	enlarged		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	1 ( 2)	0 ( 0)	2 ( 4)
	granular		2 ( 4)	0 ( 0)	1 ( 2)	0 ( 0)
pituitary	enlarged		7 ( 14)	5 ( 10)	6 ( 12)	12 ( 24)
	red zone		15 ( 30)	8 ( 16)	8 ( 16)	10 ( 20)
	black zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		2 ( 4)	5 ( 10)	0 ( 0)	0 ( 0)
	cyst		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
thyroid	enlarged		2 ( 4)	1 ( 2)	4 ( 8)	1 ( 2)
	nodule		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
adrenal	enlarged		1 ( 2)	1 ( 2)	1 ( 2)	1 ( 2)
ovary	enlarged		0 ( 0)	1 ( 2)	0 ( 0)	2 ( 4)
	nodule		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	cyst		1 ( 2)	0 ( 0)	2 ( 4)	2 ( 4)
uterus	nodule		2 ( 4)	7 ( 14)	11 ( 22)	7 ( 14)
	cyst		0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name NO. of Animals	Control 50 (%)	444 ppm 50 (%)	1333 ppm 50 (%)	4000 ppm 50 (%)
uterus	dilated lumen		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
brain	red zone		0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)
spinal cord	red zone		1 ( 2)	3 ( 6)	2 ( 4)	0 ( 0)
eye	white		1 ( 2)	4 ( 8)	3 ( 6)	5 ( 10)
peritoneum	white zone		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 2)	0 ( 0)	1 ( 2)
	mass		0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
abdominal c	hemorrhage		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	ascites		0 ( 0)	1 ( 2)	1 ( 2)	1 ( 2)
thoracic ca	pleural fluid		1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)
other	nose:nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
whole body	anemic		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)



**TABLE I 5**

**GROSS FINDINGS: FEMALE: DEAD AND MORIBUND ANIMALS**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 10 (%)	444 ppm 10 (%)	1333 ppm 7 (%)	4000 ppm 7 (%)
skin/app	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)
	mass		1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
subcutis	jaundice		2 ( 20)	0 ( 0)	1 ( 14)	1 ( 14)
	mass		4 ( 40)	3 ( 30)	1 ( 14)	0 ( 0)
nasal cavit	red zone		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)
lung	white zone		0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)
	red zone		1 ( 10)	1 ( 10)	0 ( 0)	0 ( 0)
lymph node	enlarged		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)
spleen	enlarged		5 ( 50)	4 ( 40)	6 ( 86)	1 ( 14)
heart	enlarged		1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
stomach	forestomach:ulcer		0 ( 0)	1 ( 10)	0 ( 0)	1 ( 14)
	glandular stomach:ulcer		1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
liver	enlarged		0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)
	rough		0 ( 0)	1 ( 10)	2 ( 29)	0 ( 0)
	herniation		1 ( 10)	3 ( 30)	2 ( 29)	3 ( 43)
kidney	enlarged		1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
	white zone		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)
pituitary	enlarged		2 ( 20)	1 ( 10)	0 ( 0)	2 ( 29)
	red zone		4 ( 40)	0 ( 0)	3 ( 43)	1 ( 14)
thyroid	enlarged		0 ( 0)	0 ( 0)	1 ( 14)	1 ( 14)
adrenal	enlarged		1 ( 10)	1 ( 10)	0 ( 0)	1 ( 14)
ovary	enlarged		0 ( 0)	1 ( 10)	0 ( 0)	1 ( 14)

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control 10 (%)	444 ppm 10 (%)	1333 ppm 7 (%)	4000 ppm 7 (%)
uterus	nodule		1 ( 10)	3 ( 30)	1 ( 14)	3 ( 43)
	cyst		0 ( 0)	0 ( 0)	2 ( 29)	0 ( 0)
	dilated lumen		0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)
brain	red zone		0 ( 0)	3 ( 30)	1 ( 14)	0 ( 0)
spinal cord	red zone		1 ( 10)	3 ( 30)	2 ( 29)	0 ( 0)
eye	white		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)
peritoneum	white zone		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)
	nodule		0 ( 0)	1 ( 10)	0 ( 0)	1 ( 14)
abdominal c	hemorrhage		1 ( 10)	1 ( 10)	0 ( 0)	0 ( 0)
	ascites		0 ( 0)	1 ( 10)	1 ( 14)	1 ( 14)
thoracic ca	pleural fluid		1 ( 10)	0 ( 0)	0 ( 0)	1 ( 14)
whole body	anemic		0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)

**TABLE I 6**

**GROSS FINDINGS: FEMALE: SACRIFICED ANIMALS**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
 SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control 40 (%)	444 ppm 40 (%)	1333 ppm 43 (%)	4000 ppm 43 (%)
skin/app	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	scab		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
subcutis	mass		12 ( 30)	10 ( 25)	8 ( 19)	6 ( 14)
nasal cavit	nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
lung	white zone		3 ( 8)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
spleen	enlarged		3 ( 8)	1 ( 3)	2 ( 5)	1 ( 2)
	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
heart	white zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
tongue	nodule		2 ( 5)	0 ( 0)	1 ( 2)	2 ( 5)
stomach	forestomach:nodule		0 ( 0)	1 ( 3)	2 ( 5)	4 ( 9)
	forestomach:thick		0 ( 0)	1 ( 3)	0 ( 0)	1 ( 2)
	glandular stomach:nodule		0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)
	glandular stomach:white zone		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
liver	white zone		0 ( 0)	0 ( 0)	3 ( 7)	0 ( 0)
	nodule		2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	rough		1 ( 3)	0 ( 0)	2 ( 5)	3 ( 7)
	herniation		5 ( 13)	5 ( 13)	3 ( 7)	8 ( 19)
pancreas	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
kidney	white zone		0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)
	granular		2 ( 5)	0 ( 0)	1 ( 2)	0 ( 0)
pituitary	enlarged		5 ( 13)	4 ( 10)	6 ( 14)	10 ( 23)

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)  
 SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control 40 (%)	444 ppm 40 (%)	1333 ppm 43 (%)	4000 ppm 43 (%)
pituitary	red zone		11 ( 28)	8 ( 20)	5 ( 12)	9 ( 21)
	black zone		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		2 ( 5)	5 ( 13)	0 ( 0)	0 ( 0)
	cyst		0 ( 0)	1 ( 3)	0 ( 0)	1 ( 2)
thyroid	enlarged		2 ( 5)	1 ( 3)	3 ( 7)	0 ( 0)
	nodule		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)
adrenal	enlarged		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
ovary	enlarged		0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)
	nodule		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
	cyst		1 ( 3)	0 ( 0)	2 ( 5)	2 ( 5)
uterus	nodule		1 ( 3)	4 ( 10)	10 ( 23)	4 ( 9)
eye	white		1 ( 3)	4 ( 10)	3 ( 7)	4 ( 9)
peritoneum	mass		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)
other	nose:nodule		0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)

TABLE J 1

ORGAN WEIGHT, ABSOLUTE: MALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE  
UNIT: g

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

PAGE : 1

Group Name	NO. of Animals	Body Weight		ADRENALS		TESTES		HEART		LUNGS		KIDNEYS	
Control	39	385±	37	0.120±	0.205	3.376±	1.522	1.252±	0.110	1.441±	0.149	2.822±	0.260
444 ppm	36	391±	34	0.085±	0.019	2.954±	1.301	1.281±	0.124	1.461±	0.186	2.872±	0.284
1333 ppm	35	370±	35	0.086±	0.024	3.136±	1.354	1.195±	0.072	1.464±	0.298	2.935±	0.387
4000 ppm	41	361±	31**	0.147±	0.443**	3.243±	1.335	1.189±	0.082**	1.379±	0.154*	2.786±	0.296

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

Test of Dunnett

(HCL040)

BAIS 5



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE  
UNIT: g

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	39	1.280±	0.706	11.167±	1.608	2.117±	0.039
444 ppm	36	1.670±	2.206	11.437±	1.436	2.117±	0.038
1333 ppm	35	2.256±	4.154	12.283±	3.110	2.124±	0.042
4000 ppm	41	0.996±	0.408**	10.537±	1.565	2.124±	0.044

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

Test of Dunnett

(HCL040)

BAIS 5

**TABLE J 2**

**ORGAN WEIGHT, ABSOLUTE: FEMALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: g

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

PAGE : 3

Group Name	NO. of Animals	Body Weight	ADRENALS		OVARIES		HEART		LUNGS		KIDNEYS	
Control	40	280± 33	0.083±	0.011	0.154±	0.089	0.945±	0.103	1.046±	0.233	1.907±	0.191
444 ppm	39	285± 34	0.085±	0.009	0.149±	0.024	0.914±	0.066	0.991±	0.073	1.909±	0.160
1333 ppm	43	258± 42**	0.088±	0.042	0.219±	0.377	0.900±	0.063	0.987±	0.103	1.891±	0.181
4000 ppm	42	227± 22**	0.075±	0.008**	0.142±	0.039	0.858±	0.076**	0.979±	0.096	1.789±	0.135**

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

Test of Dunnett

(HCL040)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: g

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN		LIVER		BRAIN	
Control	40	1.011 ±	1.330	7.327 ±	1.257	1.927 ±	0.046
444 ppm	39	0.720 ±	0.535	7.287 ±	1.244	1.926 ±	0.039
1333 ppm	43	0.766 ±	0.848*	6.887 ±	0.991*	1.931 ±	0.037
4000 ppm	42	0.696 ±	0.968**	6.499 ±	0.851**	1.942 ±	0.049

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

Test of Dunnett

(HCL040)

BAIS 5

TABLE K 1

ORGAN WEIGHT, RELATIVE: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE  
 UNIT: %

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

PAGE : 1

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	39	385± 37	0.030± 0.047	0.892± 0.429	0.327± 0.039	0.377± 0.048	0.736± 0.072
444 ppm	36	391± 34	0.022± 0.005	0.756± 0.327	0.329± 0.038	0.377± 0.068	0.739± 0.092
1333 ppm	35	370± 35	0.024± 0.007	0.842± 0.346	0.326± 0.031	0.404± 0.122	0.805± 0.158
4000 ppm	41	361± 31**	0.040± 0.117	0.912± 0.397	0.331± 0.026	0.384± 0.046	0.775± 0.085*

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

Test of Dunnett

(HCL042)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE  
UNIT: %

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	39	0.333± 0.179	2.899± 0.312	0.554± 0.052
444 ppm	36	0.441± 0.651	2.931± 0.339	0.546± 0.052
1333 ppm	35	0.670± 1.366	3.382± 1.085	0.580± 0.059
4000 ppm	41	0.277± 0.108	2.920± 0.320	0.593± 0.051**

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

Test of Dunnett

(HCL042)

BAIS 5

TABLE K 2

ORGAN WEIGHT, RELATIVE: FEMALE



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: %

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

PAGE : 3

Group Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	40	280± 33	0.030± 0.007	0.055± 0.030	0.344± 0.070	0.382± 0.119	0.691± 0.110
444 ppm	39	285± 34	0.030± 0.005	0.052± 0.008	0.324± 0.032	0.352± 0.046	0.678± 0.100
1333 ppm	43	258± 42**	0.034± 0.010	0.089± 0.160*	0.357± 0.059**	0.394± 0.092*	0.756± 0.184**
4000 ppm	42	227± 22**	0.033± 0.005**	0.063± 0.021**	0.381± 0.039**	0.436± 0.067**	0.794± 0.083**

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

Test of Dunnett

(HCL042)

BAIS 5

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE  
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	40	0.392± 0.582	2.658± 0.608	0.698± 0.085
444 ppm	39	0.249± 0.161	2.556± 0.297	0.687± 0.112
1333 ppm	43	0.319± 0.427	2.730± 0.551	0.767± 0.121**
4000 ppm	42	0.311± 0.440	2.875± 0.366**	0.865± 0.093**

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

Test of Dunnett

(HCL042)

BAIS 5

TABLE L 1

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS:MALE: ALL ANIMALS

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

		Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Integumentary system/appandage)																		
skin/app			<50>				<50>				<50>				<50>			
	erosion		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)
	scab		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
subcutis			<50>				<50>				<50>				<50>			
	cyst		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	abscess		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Respiratory system)																		
nasal cavit			<50>				<49>				<50>				<48>			
	thrombus		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)
	mineralization		33 ( 66)	0 ( 0)	0 ( 0)	0 ( 0)	25 ( 51)	0 ( 0)	0 ( 0)	0 ( 0)	33 ( 66)	0 ( 0)	0 ( 0)	0 ( 0)	26 ( 54)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
nasal cavit	rhinitis		<50>				<49>				<50>				<48>			
		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	( 2)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	eosinophilic change:olfactory epithelium	31	12	2	0	35	10	0	0	32	7	1	0	35	9	1	0	
		( 62)	( 24)	( 4)	( 0)	( 71)	( 20)	( 0)	( 0)	( 64)	( 14)	( 2)	( 0)	( 73)	( 19)	( 2)	( 0)	
	eosinophilic change:respiratory epithelium	9	0	0	0	6	0	0	0	3	0	0	0	7	0	0	0	
		( 18)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 15)	( 0)	( 0)	( 0)	
	inflammation:foreign body	19	3	0	0	9	5	1	0	25	3	0	0	15	2	0	0	
		( 38)	( 6)	( 0)	( 0)	( 18)	( 10)	( 2)	( 0)	( 50)	( 6)	( 0)	( 0)	( 31)	( 4)	( 0)	( 0)	
inflammation:respiratory epithelium	11	0	0	0	11	1	0	0	6	0	0	0	9	0	0	0		
	( 22)	( 0)	( 0)	( 0)	( 22)	( 2)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 19)	( 0)	( 0)	( 0)		
inflammation:olfactory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0		
	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)		
respiratory metaplasia:olfactory epithelium	11	0	0	0	10	0	0	0	9	1	0	0	7	0	0	0		
	( 22)	( 0)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)	( 18)	( 2)	( 0)	( 0)	( 15)	( 0)	( 0)	( 0)		
respiratory metaplasia:gland	47	0	0	0	49	0	0	0	48	1	0	0	46	1	0	0		
	( 94)	( 0)	( 0)	( 0)	( 100)	( 0)	( 0)	( 0)	( 96)	( 2)	( 0)	( 0)	( 96)	( 2)	( 0)	( 0)		

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

PAGE : 3

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Respiratory system]																		
nasal cavit			<50>				<49>				<50>				<48>			
	ulcer:respiratory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
	hyperplasia:transitional epithelium		1	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 )	( 2 )	( 0 )	( 0 )	( 0 )	
	necrosis:olfactory epithelium		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 )
larynx			<50>				<50>				<50>				<50>			
	inflammatory infiltration		3	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
			( 6 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 4 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
trachea			<50>				<50>				<50>				<50>			
	inflammatory infiltration		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
lung			<50>				<50>				<50>				<50>			
	congestion		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 )
	hemorrhage		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 2 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )

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

PAGE : 4

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
lung			<50>				<50>				<50>				<50>			
	inflammatory infiltration		3	2	0	0	1	0	0	0	3	0	0	0	1	2	0	0
			( 6 )	( 4 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 6 )	( 0 )	( 0 )	( 0 )	( 2 )	( 4 )	( 0 )	( 0 )
	accumulation of foamy cells		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			( 2 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	bronchopneumonia		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	
	bronchiolar-alveolar cell hyperplasia		2	2	2	0	1	1	1	0	1	1	1	0	2	2	0	0
			( 4 )	( 4 )	( 4 )	( 0 )	( 2 )	( 2 )	( 2 )	( 0 )	( 2 )	( 2 )	( 2 )	( 0 )	( 4 )	( 4 )	( 0 )	( 0 )
	uremic pneumonitis		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 )
(Hematopoietic system)																		
bone marrow			<50>				<49>				<50>				<48>			
	congestion		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 )
	hemorrhage		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 )

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 < a > a : Number of animals examined at the site  
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)  
 ALL ANIMALS (0-105W)

PAGE : 5

Organ	Findings	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
bone marrow			<50>				<49>				<50>				<48>			
	granulation		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)
	increased hematopoiesis		8	4	0	0	10	2	0	0	9	3	0	0	7	3	0	0
			( 16)	( 8)	( 0)	( 0)	( 20)	( 4)	( 0)	( 0)	( 18)	( 6)	( 0)	( 0)	( 15)	( 6)	( 0)	( 0)
	myelofibrosis		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)
lymph node			<50>				<50>				<50>				<50>			
	inflammatory infiltration		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
spleen			<50>				<50>				<50>				<50>			
	congestion		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)
	deposit of hemosiderin		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:focal		0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 2)	( 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  
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)  
 ALL ANIMALS (0-105W)

PAGE : 6

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Hematopoietic system)																		
spleen			<50>				<50>				<50>				<50>			
	extramedullary hematopoiesis		13 ( 26)	5 ( 10)	0 ( 0)	0 ( 0)	19 ( 38)	1 ( 2)	0 ( 0)	0 ( 0)	16 ( 32)	5 ( 10)	0 ( 0)	0 ( 0)	8 ( 16)	4 ( 8)	0 ( 0)	0 ( 0)
(Circulatory system)																		
heart			<50>				<50>				<50>				<50>			
	thrombus		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration		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)
	myocardial fibrosis		38 ( 76)	1 ( 2)	0 ( 0)	0 ( 0)	46 ( 92)	0 ( 0)	0 ( 0)	0 ( 0)	41 ( 82)	0 ( 0)	0 ( 0)	0 ( 0)	34 ( 68)	1 ( 2)	0 ( 0)	0 ( 0)
(Digestive system)																		
tongue			<50>				<50>				<50>				<50>			
	squamous cell hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe  
 < a > a : Number of animals examined at the site  
 b : Number of animals with lesion  
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(HPT150)

BAIS5

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

PAGE : 7

Organ	Findings	Group Name	Control				444 ppm				1333 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)																		
esophagus	inflammatory infiltration		<50>				<50>				<50>				<50>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
stomach	inflammatory infiltration		<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	intestinal metaplasia		2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 4)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	ulcer:forestomach		4	0	0	0	1	2	0	0	2	2	0	0	1	0	0	0
		( 8)	( 0)	( 0)	( 0)	( 2)	( 4)	( 0)	( 0)	( 4)	( 4)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)
	hyperplasia:forestomach		2	2	1	0	2	1	0	0	5	2	1	0	15	8	0	0 **
		( 4)	( 4)	( 2)	( 0)	( 4)	( 2)	( 0)	( 0)	( 10)	( 4)	( 2)	( 0)	( 30)	( 16)	( 0)	( 0)	
	erosion:glandular stomach		3	1	0	0	5	0	0	0	4	1	0	0	5	1	0	0
		( 6)	( 2)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 8)	( 2)	( 0)	( 0)	( 10)	( 2)	( 0)	( 0)	
	ulcer:glandular stomach		0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
		( 0)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	hyperplasia:glandular stomach		8	0	0	0	8	0	0	0	3	0	0	0	5	3	0	0
		( 16)	( 0)	( 0)	( 0)	( 16)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 10)	( 6)	( 0)	( 0)	

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 ALL ANIMALS (0-105W)

PAGE : 8

Organ	Findings	Group Name	Control				444 ppm				1333 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)																		
stomach	mineralization:glandular stomach		<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
small intes	ulcer		<50>				<50>				<50>				<50>			
		1	0	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)	( 0)
large intes	hemorrhage		<50>				<50>				<50>				<50>			
		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
liver	herniation		<50>				<50>				<50>				<50>			
		4	0	0	0	0	3	0	0	0	4	0	0	0	0	7	0	0
		( 8)	( 0)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)
	necrosis:central		1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)
	fatty change:peripheral		0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
		( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 9

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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>			
	lymphocytic infiltration		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	granulation		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory cell nest		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	extramedullary hematopoiesis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	clear 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)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	acidophilic cell focus		10 ( 20)	2 ( 4)	0 ( 0)	0 ( 0)	6 ( 12)	4 ( 8)	0 ( 0)	0 ( 0)	8 ( 16)	2 ( 4)	0 ( 0)	0 ( 0)	5 ( 10)	2 ( 4)	0 ( 0)	0 ( 0)
	basophilic cell focus		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
spongiosis hepatis		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)	

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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 10

Organ	Findings	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study				50				50				50			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
liver		<50>				<50>				<50>				<50>			
	bile duct hyperplasia	19	0	0	0	12	0	0	0	16	0	0	0	12	0	0	0
		( 38)	( 0)	( 0)	( 0)	( 24)	( 0)	( 0)	( 0)	( 32)	( 0)	( 0)	( 0)	( 24)	( 0)	( 0)	( 0)
	cholangiofibrosis	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)
pancreas		<50>				<50>				<50>				<50>			
	atrophy	3	1	0	0	2	1	0	0	4	0	0	0	6	0	0	0
		( 6)	( 2)	( 0)	( 0)	( 4)	( 2)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)
	acidophilic cell focus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	islet cell hyperplasia	1	0	0	0	2	1	0	0	0	1	0	0	1	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 4)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
(Urinary system)																	
kidney		<50>				<50>				<50>				<50>			
	cyst	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Urinary system)																		
kidney	scar		<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)	2 ( 4)	0 ( 0)	0 ( 0)	
		13 ( 26)	24 ( 48)	9 ( 18)	0 ( 0)	13 ( 26)	25 ( 50)	9 ( 18)	0 ( 0)	9 ( 18)	22 ( 44)	12 ( 24)	1 ( 2)	15 ( 30)	25 ( 50)	5 ( 10)	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)	0 ( 0)	
		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)	
urin bladd	dilatation		<50>				<50>				<50>				<50>			
		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)	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)	
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	
	inflammation		<50>				<50>				<50>				<50>			
		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)	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)	
		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)	
	simple hyperplasia:transitional epithelium		<50>				<50>				<50>				<50>			
		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)	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)	
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	
(Endocrine system)																		
pituitary	angiectasis		<49>				<50>				<50>				<50>			
		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)	1 ( 2)	0 ( 0)	0 ( 0)	

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 12

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
Grade																		
1+ 2+ 3+ 4+ 1+ 2+ 3+ 4+ 1+ 2+ 3+ 4+ 1+ 2+ 3+ 4+																		
(%) (%)																		

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe  
 < a > a : Number of animals examined at the site  
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 ( c ) c : b / a \* 100  
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STUDY NO. : 0739  
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HISTOPATHOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)  
 ALL ANIMALS (0-105W)

PAGE : 13

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																		
adrenal			<50>				<50>				<50>				<50>			
	hyperplasia:cortical cell		3 ( 6)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	2 ( 4)	0 ( 0)	0 ( 0)
	hyperplasia:medulla		0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	2 ( 4)	4 ( 8)	0 ( 0)	0 ( 0)	2 ( 4)	4 ( 8)	0 ( 0)	0 ( 0)	2 ( 4)	3 ( 6)	0 ( 0)	0 ( 0)
	focal fatty change:cortex		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
(Reproductive system)																		
testis			<50>				<50>				<50>				<50>			
	mineralization		3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	interstitial cell hyperplasia		10 ( 20)	1 ( 2)	0 ( 0)	0 ( 0)	9 ( 18)	1 ( 2)	0 ( 0)	0 ( 0)	8 ( 16)	1 ( 2)	0 ( 0)	0 ( 0)	6 ( 12)	0 ( 0)	0 ( 0)	0 ( 0)
prostate			<50>				<50>				<50>				<50>			
	inflammation		5 ( 10)	2 ( 4)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 14

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Reproductive system)																		
prostate			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia		4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)
mammary gl			<50>				<50>				<50>				<50>			
	galactoceles		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Nervous system)																		
brain			<50>				<50>				<50>				<50>			
	hemorrhage		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)	1 ( 2)	0 ( 0)
(Special sense organs/appendage)																		
eye			<50>				<50>				<50>				<50>			
	atrophy		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)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 15

Organ	Findings	Group Name No. of Animals on Study				Control Grade				444 ppm Grade				1333 ppm Grade				4000 ppm Grade			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																					
eye		<50>				<50>				<50>				<50>				<50>			
	cataract	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	4 ( 8)	1 ( 2)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	3 ( 6)	0 ( 0)	0 ( 0)	2 ( 4)	3 ( 6)	0 ( 0)	0 ( 0)
	retinal atrophy	23 ( 46)	3 ( 6)	1 ( 2)	0 ( 0)	25 ( 50)	1 ( 2)	1 ( 2)	0 ( 0)	32 ( 64)	3 ( 6)	0 ( 0)	0 ( 0)	30 ( 60)	3 ( 6)	1 ( 2)	0 ( 0)	30 ( 60)	3 ( 6)	1 ( 2)	0 ( 0)
	keratitis	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	iritis	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)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
Harder gl		<50>				<50>				<50>				<50>				<50>			
	degeneration	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	lymphocytic infiltration	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)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Musculoskeletal system)																					
bone		<50>				<49>				<50>				<48>				<48>			
	osteosclerosis	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 16

Organ	Findings	Group Name No. of Animals on Study				Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
		Grade				1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Body cavities)																					
peritoneum	peritonitis	<50>				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)	( 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

(HPT150)

BAIS5

**TABLE L 2**

**HISTOPATHOLOGICAL FINDINGS:**

**NON-NEOPLASTIC LESIONS:**

**MALE: DEAD AND MORIBUND ANIMALS**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
nasal cavit			<11>				<14>				<14>				< 8>			
	thrombus		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)
	mineralization		8 ( 73)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 43)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 43)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 38)	0 ( 0)	0 ( 0)	0 ( 0)
	rhinitis		1 ( 9)	1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	eosinophilic change:olfactory epithelium		6 ( 55)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 64)	2 ( 14)	0 ( 0)	0 ( 0)	5 ( 36)	2 ( 14)	1 ( 7)	0 ( 0)	5 ( 63)	1 ( 13)	0 ( 0)	0 ( 0)
	eosinophilic change:respiratory epithelium		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation:foreign body		1 ( 9)	1 ( 9)	0 ( 0)	0 ( 0)	3 ( 21)	2 ( 14)	1 ( 7)	0 ( 0)	3 ( 21)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 50)	1 ( 13)	0 ( 0)	0 ( 0)
	inflammation:respiratory epithelium		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	respiratory metaplasia:olfactory epithelium		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 25)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study Grade				Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																					
nasal cavit		<11>				<14>				<14>				< 8>							
	respiratory metaplasia:gland	9	0	0	0	14	0	0	0	13	0	0	0	7	0	0	0				
		( 82)	( 0)	( 0)	( 0)	(100)	( 0)	( 0)	( 0)	( 93)	( 0)	( 0)	( 0)	( 88)	( 0)	( 0)	( 0)				
	ulcer:respiratory epithelium	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0				
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 13)	( 0)	( 0)	( 0)				
	necrosis:olfactory epithelium	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0				
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)				
larynx		<11>				<14>				<14>				< 9>							
	inflammatory infiltration	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0				
		( 9)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 11)	( 0)	( 0)	( 0)				
lung		<11>				<14>				<14>				< 9>							
	congestion	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)				
	hemorrhage	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		( 9)	( 9)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)				
	inflammatory infiltration	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0				
		( 9)	( 9)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)	( 0)	( 11)	( 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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
lung	bronchopneumonia		<11>				<14>				<14>				< 9>			
			0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)
	uremic pneumonitis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Hematopoietic system)																		
bone marrow	congestion		<11>				<14>				<14>				< 8>			
			0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	increased hematopoiesis		1 ( 9)	3 ( 27)	0 ( 0)	0 ( 0)	1 ( 7)	2 ( 14)	0 ( 0)	0 ( 0)	4 ( 29)	2 ( 14)	0 ( 0)	0 ( 0)	3 ( 38)	2 ( 25)	0 ( 0)	0 ( 0)
spleen	deposit of hemosiderin		<11>				<14>				<14>				< 9>			
			1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	fibrosis:focal		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	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. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 4

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Hematopoietic system)																		
spleen			<11>				<14>				<14>				< 9>			
	extramedullary hematopoiesis		1 ( 9)	3 ( 27)	0 ( 0)	0 ( 0)	5 ( 36)	1 ( 7)	0 ( 0)	0 ( 0)	2 ( 14)	4 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 33)	0 ( 0)	0 ( 0)
(Circulatory system)																		
heart			<11>				<14>				<14>				< 9>			
	thrombus		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 ( 22)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration		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 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
	myocardial fibrosis		11 (100)	0 ( 0)	0 ( 0)	0 ( 0)	13 ( 93)	0 ( 0)	0 ( 0)	0 ( 0)	11 ( 79)	0 ( 0)	0 ( 0)	0 ( 0)	5 ( 56)	1 ( 11)	0 ( 0)	0 * ( 0)
(Digestive system)																		
stomach			<11>				<14>				<14>				< 9>			
	intestinal metaplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 5

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
stomach			<11>				<14>				<14>				< 9>			
	ulcer:forestomach		4 ( 36)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	2 ( 14)	0 ( 0)	0 ( 0)	1 ( 7)	2 ( 14)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:forestomach		2 ( 18)	1 ( 9)	1 ( 9)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	1 ( 7)	1 ( 7)	0 ( 0)	3 ( 33)	4 ( 44)	0 ( 0)	0 ( 0)
	erosion:glandular stomach		2 ( 18)	1 ( 9)	0 ( 0)	0 ( 0)	3 ( 21)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	1 ( 7)	0 ( 0)	0 ( 0)	2 ( 22)	1 ( 11)	0 ( 0)	0 ( 0)
	ulcer:glandular stomach		0 ( 0)	1 ( 9)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:glandular stomach		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	mineralization:glandular stomach		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
large intes			<11>				<14>				<14>				< 9>			
	hemorrhage		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
liver			<11>				<14>				<14>				< 9>			
	herniation		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	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. : 0739  
 ANIMAL : RAT F344/DuCrj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 6

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
liver			<11>				<14>				<14>				< 9>			
	necrosis: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 )	2 ( 22 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	fatty change:peripheral		0 ( 0 )	0 ( 0 )	1 ( 9 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	inflammatory infiltration		0 ( 0 )	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 ( 11 )	0 ( 0 )	0 ( 0 )
	granulation		1 ( 9 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 14 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	extramedullary hematopoiesis		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 11 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	spongiosis hepatis		1 ( 9 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	bile duct hyperplasia		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 14 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	cholangiofibrosis		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )

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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 7

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	11				14				14				9			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
(Digestive system)																		
pancreas	atrophy		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
<hr/>																		
(Urinary system)																		
kidney	chronic nephropathy		<11>				<14>				<14>				< 9>			
		3 ( 27)	1 ( 9)	3 ( 27)	0 ( 0)	7 ( 50)	4 ( 29)	0 ( 0)	0 ( 0)	3 ( 21)	5 ( 36)	1 ( 7)	1 ( 7)	2 ( 22)	3 ( 33)	0 ( 0)	0 ( 0)	
	mineralization:cortex		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
		glomerulosclerosis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
urin bladd	dilatation		<11>				<14>				<14>				< 9>			
		0 ( 0)	1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Urinary system)																		
urin bladd	simple hyperplasia:transitional epithelium		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)	
(Endocrine system)																		
pituitary	cyst		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	1 ( 7)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)	
	hyperplasia		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	1 ( 7)	0 ( 0)	0 ( 0)	1 ( 7)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	
	Rathke pouch		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	
thyroid	C-cell hyperplasia		<11>				<14>				<14>				< 9>			
		2 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
adrenal	inflammatory infiltration		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 9

Organ	Findings	Group Name No. of Animals on Study Grade	Control 11				444 ppm 14				1333 ppm 14				4000 ppm 9			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
adrenal			<11>				<14>				<14>				< 9>			
	hyperplasia:cortical cell		0 ( 0)	0 ( 0)	1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:medulla		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	focal fatty change:cortex		1 ( 9)	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)
(Reproductive system)																		
testis			<11>				<14>				<14>				< 9>			
	mineralization		2 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)	0 ( 0)
	interstitial cell hyperplasia		4 ( 36)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	1 ( 7)	0 ( 0)	0 ( 0)	5 ( 36)	1 ( 7)	0 ( 0)	0 ( 0)	3 ( 33)	0 ( 0)	0 ( 0)	0 ( 0)
prostate			<11>				<14>				<14>				< 9>			
	inflammation		3 ( 27)	2 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 10

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	11				14				14				9			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Reproductive system)																		
mammary gl	galactoceles		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Nervous system)																		
brain	hemorrhage		<11>				<14>				<14>				< 9>			
		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 11)	0 ( 0)	0 ( 0)
(Special sense organs/appendage)																		
eye	atrophy		<11>				<14>				<14>				< 9>			
		0 ( 0)	0 ( 0)	1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	cataract		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
retinal atrophy		2 ( 18)	2 ( 18)	0 ( 0)	0 ( 0)	2 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 21)	1 ( 7)	0 ( 0)	0 ( 0)	1 ( 11)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 11

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	11				14				14				9			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																		
eye			<11>				<14>				<14>				< 9>			
	keratitis		1 ( 9)	1 ( 9)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	iritis		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
Harder gl			<11>				<14>				<14>				< 9>			
	degeneration		1 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Musculoskeletal system)																		
bone			<11>				<14>				<14>				< 8>			
	osteosclerosis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)
(Body cavities)																		
peritoneum			<11>				<14>				<14>				< 9>			
	peritonitis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	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

TABLE L 3

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS:

MALE: SACRIFICED ANIMALS



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Crlj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	39				36				36				41			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Integumentary system/appandage)																		
skin/app			<39>				<36>				<36>				<41>			
	erosion		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 )
	scab		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
subcutis			<39>				<36>				<36>				<41>			
	cyst		1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	abscess		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
(Respiratory system)																		
nasal cavit			<39>				<35>				<36>				<40>			
	thrombus		1 ( 3 )	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 )
	mineralization		25 ( 64 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	19 ( 54 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	27 ( 75 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	23 ( 58 )	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
nasal cavit		<39>				<35>				<36>				<40>			
	eosinophilic change:olfactory epithelium	25 ( 64)	12 ( 31)	2 ( 5)	0 ( 0)	26 ( 74)	8 ( 23)	0 ( 0)	0 ( 0)	27 ( 75)	5 ( 14)	0 ( 0)	0 * ( 0)	30 ( 75)	8 ( 20)	1 ( 3)	0 ( 0)
	eosinophilic change:respiratory epithelium	8 ( 21)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 17)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 * ( 0)	7 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation:foreign body	18 ( 46)	2 ( 5)	0 ( 0)	0 ( 0)	6 ( 17)	3 ( 9)	0 ( 0)	0 * ( 0)	22 ( 61)	3 ( 8)	0 ( 0)	0 ( 0)	11 ( 28)	1 ( 3)	0 ( 0)	0 ( 0)
	inflammation:respiratory epithelium	10 ( 26)	0 ( 0)	0 ( 0)	0 ( 0)	10 ( 29)	1 ( 3)	0 ( 0)	0 ( 0)	5 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 23)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation:olfactory epithelium	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)
	respiratory metaplasia:olfactory epithelium	10 ( 26)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 17)	0 ( 0)	0 ( 0)	0 ( 0)	7 ( 19)	1 ( 3)	0 ( 0)	0 ( 0)	5 ( 13)	0 ( 0)	0 ( 0)	0 ( 0)
	respiratory metaplasia:gland	38 ( 97)	0 ( 0)	0 ( 0)	0 ( 0)	35 (100)	0 ( 0)	0 ( 0)	0 ( 0)	35 ( 97)	1 ( 3)	0 ( 0)	0 ( 0)	39 ( 98)	1 ( 3)	0 ( 0)	0 ( 0)
	hyperplasia:transitional epithelium	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
larynx	inflammatory infiltration	<39>				<36>				<36>				<41>			
		2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
trachea	inflammatory infiltration	<39>				<36>				<36>				<41>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
lung	inflammatory infiltration	<39>				<36>				<36>				<41>			
		2 ( 5)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)
	accumulation of foamy cells	<39>				<36>				<36>				<41>			
		1 ( 3)	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)	2 ( 5)	2 ( 5)	0 ( 0)	1 ( 3)	1 ( 3)	1 ( 3)	0 ( 0)	1 ( 3)	1 ( 3)	1 ( 3)	0 ( 0)	2 ( 5)	2 ( 5)	0 ( 0)	0 ( 0)
(Hematopoietic system)																	
bone marrow	hemorrhage	<39>				<35>				<36>				<40>			
		0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 4

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																	
bone marrow		<39>				<35>				<36>				<40>			
	granulation	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	increased hematopoiesis	7 ( 18)	1 ( 3)	0 ( 0)	0 ( 0)	9 ( 26)	0 ( 0)	0 ( 0)	0 ( 0)	5 ( 14)	1 ( 3)	0 ( 0)	0 ( 0)	4 ( 10)	1 ( 3)	0 ( 0)	0 ( 0)
	myelofibrosis	0 ( 0)	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)
lymph node		<39>				<36>				<36>				<41>			
	inflammatory infiltration	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)
spleen		<39>				<36>				<36>				<41>			
	congestion	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)
	fibrosis:focal	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	extramedullary hematopoiesis	12 ( 31)	2 ( 5)	0 ( 0)	0 ( 0)	14 ( 39)	0 ( 0)	0 ( 0)	0 ( 0)	14 ( 39)	1 ( 3)	0 ( 0)	0 ( 0)	8 ( 20)	1 ( 2)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 5

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 39				444 ppm 36				1333 ppm 36				4000 ppm 41			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
{Circulatory system}																		
heart			<39>				<36>				<36>				<41>			
	myocardial fibrosis		27 ( 69)	1 ( 3)	0 ( 0)	0 ( 0)	33 ( 92)	0 ( 0)	0 ( 0)	0 * ( 0)	30 ( 83)	0 ( 0)	0 ( 0)	0 ( 0)	29 ( 71)	0 ( 0)	0 ( 0)	0 ( 0)
{Digestive system}																		
tongue			<39>				<36>				<36>				<41>			
	squamous cell hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
esophagus			<39>				<36>				<36>				<41>			
	inflammatory infiltration		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
stomach			<39>				<36>				<36>				<41>			
	inflammatory infiltration		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)
	intestinal metaplasia		2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	ulcer:forestomach		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 ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 6

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
stomach		<39>				<36>				<36>				<41>			
	hyperplasia:forestomach	0	1	0	0	1	1	0	0	3	1	0	0	12	4	0	0 **
		( 0)	( 3)	( 0)	( 0)	( 3)	( 3)	( 0)	( 0)	( 8)	( 3)	( 0)	( 0)	( 29)	( 10)	( 0)	( 0)
	erosion:glandular stomach	1	0	0	0	2	0	0	0	2	0	0	0	3	0	0	0
		( 3)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 7)	( 0)	( 0)	( 0)
	hyperplasia:glandular stomach	7	0	0	0	6	0	0	0	2	0	0	0	5	3	0	0
		( 18)	( 0)	( 0)	( 0)	( 17)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 12)	( 7)	( 0)	( 0)
small intes		<39>				<36>				<36>				<41>			
	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)	( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
liver		<39>				<36>				<36>				<41>			
	herniation	3	0	0	0	2	0	0	0	3	0	0	0	6	0	0	0
		( 8)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 15)	( 0)	( 0)	( 0)
	necrosis:central	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)
	lymphocytic infiltration	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 7

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	39				36				36				41			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver	granulation		<39>				<36>				<36>				<41>			
		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	( 3)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	
	inflammatory cell nest	2	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0
		( 5)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	
	clear cell focus	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	
acidophilic cell focus	10	2	0	0	6	4	0	0	8	2	0	0	5	2	0	0		
	( 26)	( 5)	( 0)	( 0)	( 17)	( 11)	( 0)	( 0)	( 22)	( 6)	( 0)	( 0)	( 12)	( 5)	( 0)	( 0)		
basophilic cell focus	1	0	0	0	3	0	0	0	4	0	0	0	2	0	0	0		
	( 3)	( 0)	( 0)	( 0)	( 8)	( 0)	( 0)	( 0)	( 11)	( 0)	( 0)	( 0)	( 5)	( 0)	( 0)	( 0)		
spongiosis hepatis	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)		
bile duct hyperplasia	19	0	0	0	10	0	0	0	15	0	0	0	12	0	0	0		
	( 49)	( 0)	( 0)	( 0)	( 28)	( 0)	( 0)	( 0)	( 42)	( 0)	( 0)	( 0)	( 29)	( 0)	( 0)	( 0)		
pancreas	atrophy		<39>				<36>				<36>				<41>			
		3	1	0	0	2	1	0	0	4	0	0	0	5	0	0	0	
		( 8)	( 3)	( 0)	( 0)	( 6)	( 3)	( 0)	( 0)	( 11)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe  
 < a > a : Number of animals examined at the site  
 b 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. : 0739  
 ANIMAL : RAT F344/DuCrI Crij [F344/DuCrI]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 8

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
pancreas		<39>				<36>				<36>				<41>			
	acidophilic cell focus	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 )
	islet cell hyperplasia	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
(Urinary system)																	
kidney		<39>				<36>				<36>				<41>			
	cyst	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	scar	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 )	2 ( 5 )	0 ( 0 )	0 ( 0 )
	chronic nephropathy	10 ( 26 )	23 ( 59 )	6 ( 15 )	0 ( 0 )	6 ( 17 )	21 ( 58 )	9 ( 25 )	0 ( 0 )	6 ( 17 )	17 ( 47 )	11 ( 31 )	0 ( 0 )	13 ( 32 )	22 ( 54 )	5 ( 12 )	1 ( 2 )
(Endocrine system)																	
pituitary		<38>				<36>				<36>				<41>			
	angiectasis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )

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



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Crlj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 9

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																	
pituitary		<38>				<36>				<36>				<41>			
	cyst	2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	hyperplasia	6 ( 16)	8 ( 21)	3 ( 8)	0 ( 0)	8 ( 22)	2 ( 6)	3 ( 8)	0 ( 0)	10 ( 28)	5 ( 14)	3 ( 8)	0 ( 0)	10 ( 24)	4 ( 10)	1 ( 2)	0 ( 0)
	Rathke pouch	3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 6)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
thyroid		<39>				<36>				<36>				<41>			
	follicular hyperplasia	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	C-cell hyperplasia	6 ( 15)	3 ( 8)	3 ( 8)	0 ( 0)	5 ( 14)	2 ( 6)	1 ( 3)	0 ( 0)	4 ( 11)	3 ( 8)	0 ( 0)	0 ( 0)	2 ( 5)	1 ( 2)	1 ( 2)	0 ( 0)
adrenal		<39>				<36>				<36>				<41>			
	mineralization	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:cortical cell	3 ( 8)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	2 ( 5)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 10

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 39				444 ppm 36				1333 ppm 36				4000 ppm 41			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
adrenal			<39>				<36>				<36>				<41>			
	hyperplasia:medulla		0 ( 0 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	3 ( 7 )	0 ( 0 )	0 ( 0 )
	focal fatty change:cortex		1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
(Reproductive system)																		
testis			<39>				<36>				<36>				<41>			
	mineralization		1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	inflammation		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	interstitial cell hyperplasia		6 ( 15 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	8 ( 22 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
prostate			<39>				<36>				<36>				<41>			
	inflammation		2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 6 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 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 ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name No. of Animals on Study Grade				Control 39				444 ppm 36				1333 ppm 36				4000 ppm 41			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Reproductive system)																					
prostate	lymphocytic infiltration	<39>				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)	( 0)	( 0)	( 0)	( 0)
	hyperplasia	<39>				4	0	0	0	4	0	0	0	1	1	0	0	0	1	0	0
		( 10)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 11)	( 0)	( 0)	( 0)	( 3)	( 3)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)
(Special sense organs/appendage)																					
eye	cataract	<39>				2	1	0	0	3	1	0	0	2	0	0	0	2	3	0	0
		( 5)	( 3)	( 0)	( 0)	( 8)	( 3)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 5)	( 7)	( 0)	( 0)
	retinal atrophy	<39>				21	1	1	0	23	1	1	0	29	2	0	0 *	29	3	1	0
		( 54)	( 3)	( 3)	( 0)	( 64)	( 3)	( 3)	( 0)	( 81)	( 6)	( 0)	( 0)	( 81)	( 6)	( 0)	( 0)	( 71)	( 7)	( 2)	( 0)
	keratitis	<39>				2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 5)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
Harder gl	degeneration	<39>				0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 3)	( 0)	( 0)	( 0)	( 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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Grade	Control 39				444 ppm 36				1333 ppm 36				4000 ppm 41			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)

(Special sense organs/appendage)

Harder gl	lymphocytic infiltration	<39>				<36>				<36>				<41>			
		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)

(Musculoskeletal system)

bone	osteosclerosis	<39>				<35>				<36>				<40>			
		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)

(Body cavities)

peritoneum	peritonitis	<39>				<36>				<36>				<41>			
		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)	( 0)	( 0)

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

(HPT150)

BAIS5

TABLE L 4

HISTOPATHOLOGICAL FINDINGS: NON-NEOPLASTIC  
LESIONS: FEMALE: ALL ANIMALS

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study				Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
		Grade				1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Integumentary system/appandage)																					
skin/app		<50>				<50>				<50>				<50>				<50>			
	erosion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	scab	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)
(Respiratory system)																					
nasal cavit		<50>				<48>				<50>				<50>				<50>			
	hemorrhage	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)
	thrombus	3	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0
		( 6)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	mineralization	18	0	0	0	13	0	0	0	18	0	0	0	14	0	0	0	14	0	0	0
		( 36)	( 0)	( 0)	( 0)	( 27)	( 0)	( 0)	( 0)	( 36)	( 0)	( 0)	( 0)	( 28)	( 0)	( 0)	( 0)	( 28)	( 0)	( 0)	( 0)
	goblet cell hyperplasia	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	eosinophilic change:olfactory epithelium	12	33	2	0	21	24	0	0	20	28	2	0	18	30	0	0	18	30	0	0
		( 24)	( 66)	( 4)	( 0)	( 44)	( 50)	( 0)	( 0)	( 40)	( 56)	( 4)	( 0)	( 36)	( 60)	( 0)	( 0)	( 36)	( 60)	( 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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
nasal cavit			<50>				<48>				<50>				<50>			
	eosinophilic change:respiratory epithelium		10 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 19)	0 ( 0)	0 ( 0)	0 ( 0)	9 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)	11 ( 22)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation:foreign body		2 ( 4)	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)
	inflammation:respiratory epithelium		9 ( 18)	1 ( 2)	0 ( 0)	0 ( 0)	14 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)	8 ( 16)	0 ( 0)	0 ( 0)	0 ( 0)	10 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)
	respiratory metaplasia:gland		50 (100)	0 ( 0)	0 ( 0)	0 ( 0)	48 (100)	0 ( 0)	0 ( 0)	0 ( 0)	50 (100)	0 ( 0)	0 ( 0)	0 ( 0)	50 (100)	0 ( 0)	0 ( 0)	0 ( 0)
	ulcer:respiratory epithelium		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)	0 ( 0)	0 ( 0)	
larynx			<50>				<50>				<50>				<50>			
	inflammatory infiltration		9 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)
lung			<50>				<50>				<50>				<50>			
	congestion		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 19

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
lung			<50>				<50>				<50>				<50>			
	inflammatory infiltration		3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)
	accumulation of foamy cells		3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	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)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Hematopoietic system)																		
bone marrow			<50>				<48>				<50>				<50>			
	granulation		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	increased hematopoiesis		7 ( 14)	1 ( 2)	0 ( 0)	0 ( 0)	8 ( 17)	0 ( 0)	0 ( 0)	0 ( 0)	6 ( 12)	1 ( 2)	0 ( 0)	0 ( 0)	9 ( 18)	0 ( 0)	0 ( 0)	0 ( 0)
	myelofibrosis		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)
spleen			<50>				<50>				<50>				<50>			
	congestion		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade				Control 50				444 ppm 50				1333 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+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																					
spleen		<50>				<50>				<50>				<50>				<50>			
	deposit of hemosiderin	24 ( 48)	0 ( 0)	0 ( 0)	0 ( 0)	33 ( 66)	1 ( 2)	0 ( 0)	0 ( 0)	35 ( 70)	0 ( 0)	0 ( 0)	0 * ( 0)	37 ( 74)	0 ( 0)	0 ( 0)	0 * ( 0)				
	focal lymphoid hyperplasia	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)				
	extramedullary hematopoiesis	34 ( 68)	2 ( 4)	4 ( 8)	0 ( 0)	33 ( 66)	6 ( 12)	2 ( 4)	0 ( 0)	31 ( 62)	4 ( 8)	1 ( 2)	0 ( 0)	34 ( 68)	1 ( 2)	3 ( 6)	0 ( 0)				
(Circulatory system)																					
heart		<50>				<50>				<50>				<50>				<50>			
	thrombus	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)	0 ( 0)	0 ( 0)	0 ( 0)				
	mineralization	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)				
	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)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)				
	myocardial fibrosis	28 ( 56)	1 ( 2)	0 ( 0)	0 ( 0)	27 ( 54)	1 ( 2)	0 ( 0)	0 ( 0)	19 ( 38)	1 ( 2)	0 ( 0)	0 ( 0)	17 ( 34)	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 ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 21

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
stomach			<50>				<50>				<50>				<50>			
	ulcer:forestomach		3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)
	hyperplasia:forestomach		2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	1 ( 2)	0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	12 ( 24)	6 ( 12)	1 ( 2)	0 ** ( 0)
	erosion:glandular stomach		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	ulcer:glandular stomach		5 ( 10)	0 ( 0)	1 ( 2)	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)
	hyperplasia:glandular stomach		6 ( 12)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	7 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	10 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)
liver	neuroendocrine cell hyperplasia:focal		0 ( 0)	1 ( 2)	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)
	herniation		<50>				<50>				<50>				<50>			
			7 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	8 ( 16)	0 ( 0)	0 ( 0)	0 ( 0)	5 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	13 ( 26)	0 ( 0)	0 ( 0)	0 ( 0)
	necrosis:central		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)	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 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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 22

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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>			
	necrosis:focal		0	0	0	0	3	0	0	0	1	1	0	0	0	1	0	0
			( 0)	( 0)	( 0)	( 0)	( 6)	( 0)	( 0)	( 0)	( 2)	( 2)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)
	inflammatory infiltration		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)
	lymphocytic infiltration		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	granulation		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)	
	inflammatory cell nest		4	2	0	0	2	2	1	0	2	2	0	0	1	3	0	0
			( 8)	( 4)	( 0)	( 0)	( 4)	( 4)	( 2)	( 0)	( 4)	( 4)	( 0)	( 0)	( 2)	( 6)	( 0)	( 0)
	clear cell focus		3	0	0	0	0	0	1	0	2	0	0	0	1	0	0	0
			( 6)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 4)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	acidophilic cell focus		7	2	0	0	6	0	0	0	6	0	0	0	6	2	2	0
			( 14)	( 4)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 12)	( 0)	( 0)	( 0)	( 12)	( 4)	( 4)	( 0)
	basophilic cell focus		25	0	0	0	24	1	0	0	28	1	0	0	19	0	0	0
			( 50)	( 0)	( 0)	( 0)	( 48)	( 2)	( 0)	( 0)	( 56)	( 2)	( 0)	( 0)	( 38)	( 0)	( 0)	( 0)
Grade	1+ : Slight	2+ : Moderate	3+ : Marked	4+ : Severe														
< a >	a : Number of animals examined at the site																	
b	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
liver			<50>				<50>				<50>				<50>			
	bile duct hyperplasia		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)
	bile ductular proliferation		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	cholangiofibrosis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
pancreas			<50>				<50>				<50>				<50>			
	atrophy		2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)
	islet cell hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Urinary system)																		
kidney			<50>				<50>				<50>				<50>			
	cyst		1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 24

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Urinary system)																			
kidney			<50>				<50>				<50>				<50>				
	hyaline droplet		1 ( 2)	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)
	scar		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	chronic nephropathy		25 ( 50)	5 ( 10)	2 ( 4)	0 ( 0)	28 ( 56)	5 ( 10)	2 ( 4)	0 ( 0)	28 ( 56)	4 ( 8)	1 ( 2)	0 ( 0)	21 ( 42)	4 ( 8)	1 ( 2)	0 ( 0)	0 ( 0)
	mineralization:pelvis		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)	0 ( 0)
(Endocrine system)																			
pituitary			<50>				<50>				<50>				<50>				
	angiectasis		2 ( 4)	2 ( 4)	0 ( 0)	0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	1 ( 2)	0 ( 0)	0 ( 0)	4 ( 8)	3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)
	cyst		9 ( 18)	2 ( 4)	0 ( 0)	0 ( 0)	6 ( 12)	2 ( 4)	0 ( 0)	0 ( 0)	6 ( 12)	2 ( 4)	0 ( 0)	0 ( 0)	5 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia		2 ( 4)	5 ( 10)	1 ( 2)	0 ( 0)	11 ( 22)	3 ( 6)	0 ( 0)	0 * ( 0)	4 ( 8)	8 ( 16)	1 ( 2)	0 ( 0)	4 ( 8)	2 ( 4)	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 ≤ 0.05 \*\* : P ≤ 0.01 Test of Chi Square

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 25

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																		
pituitary			<50>				<50>				<50>				<50>			
	Rathke pouch		3 ( 6)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	5 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)
thyroid			<50>				<50>				<50>				<50>			
	C-cell hyperplasia		8 ( 16)	0 ( 0)	1 ( 2)	0 ( 0)	5 ( 10)	1 ( 2)	0 ( 0)	0 ( 0)	9 ( 18)	2 ( 4)	0 ( 0)	0 ( 0)	5 ( 10)	1 ( 2)	0 ( 0)	0 ( 0)
parathyroid			<50>				<50>				<50>				<50>			
	hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
adrenal			<50>				<50>				<50>				<50>			
	peliosis-like lesion		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)
	extramedullary hematopoiesis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:cortical cell		3 ( 6)	4 ( 8)	0 ( 0)	0 ( 0)	4 ( 8)	2 ( 4)	1 ( 2)	0 ( 0)	6 ( 12)	1 ( 2)	0 ( 0)	0 ( 0)	5 ( 10)	2 ( 4)	0 ( 0)	0 ( 0)
	hyperplasia:medulla		1 ( 2)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 26

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																		
adrenal	focal fatty change:cortex		<50>				<50>				<50>				<50>			
		7 ( 14)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 6)	1 ( 2)	0 ( 0)	0 ( 0)	4 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Reproductive system)																		
ovary	cyst		<50>				<50>				<50>				<50>			
		2 ( 4)	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)	0 ( 0)
	abscess		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)
uterus	dilatation		<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)	0 ( 0)
	decidual change		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)
	cystic endometrial hyperplasia		5 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	10 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	13 ( 26)	0 ( 0)	0 ( 0)	0 ( 0)	8 ( 16)	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. : 0739  
 ANIMAL : RAT F344/DuCrj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 27

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Nervous system)																		
brain	hemorrhage		<50>				<50>				<50>				<50>			
		1 ( 2)	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)	
	gliosis		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)	
spinal cord	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)	
(Special sense organs/appendage)																		
eye	cataract		<50>				<50>				<50>				<50>			
		4 ( 8)	1 ( 2)	0 ( 0)	0 ( 0)	2 ( 4)	1 ( 2)	1 ( 2)	0 ( 0)	1 ( 2)	2 ( 4)	0 ( 0)	0 ( 0)	2 ( 4)	4 ( 8)	0 ( 0)	0 ( 0)	
	retinal atrophy		41 ( 82)	1 ( 2)	1 ( 2)	0 ( 0)	38 ( 76)	3 ( 6)	0 ( 0)	0 ( 0)	42 ( 84)	2 ( 4)	1 ( 2)	0 ( 0)	39 ( 78)	4 ( 8)	2 ( 4)	0 ( 0)
	keratitis		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)

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 28

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 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+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																		
eye	iritis		<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
Harder gl	degeneration		<50>				<50>				<50>				<50>			
		1	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		( 2)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)
	inflammatory infiltration		0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
			( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 2)	( 0)	( 0)
	lymphocytic infiltration		0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	
hyperplasia		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 2)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	
(Musculoskeletal system)																		
muscle	mineralization		<50>				<50>				<50>				<50>			
		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)	( 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)																		

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 29

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				444 ppm 50				1333 ppm 50				4000 ppm 50			
			1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Musculoskeletal system)																		
bone			<50>				<48>				<50>				<50>			
	osteosclerosis		1	1	0	0	2	0	0	0	2	1	0	0	1	2	0	0
			( 2)	( 2)	( 0)	( 0)	( 4)	( 0)	( 0)	( 0)	( 4)	( 2)	( 0)	( 0)	( 2)	( 4)	( 0)	( 0)

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

(HPT150)

BAIS5

TABLE L 5

HISTOPATHOLOGICAL FINDINGS:

NON-NEOPLASTIC LESIONS:

FEMALE: DEAD AND MORIBUND ANIMALS

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 12

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 10				1333 ppm 7				4000 ppm 7			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
nasal cavit	hemorrhage	<10>				<10>				< 7>				< 7>			
		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	thrombus	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
		( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 29)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)
	mineralization	1	0	0	0	2	0	0	0	4	0	0	0	1	0	0	0
		( 10)	( 0)	( 0)	( 0)	( 20)	( 0)	( 0)	( 0)	( 57)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)
	eosinophilic change:olfactory epithelium	1	6	0	0	6	1	0	0 *	4	2	1	0	1	5	0	0
		( 10)	( 60)	( 0)	( 0)	( 60)	( 10)	( 0)	( 0)	( 57)	( 29)	( 14)	( 0)	( 14)	( 71)	( 0)	( 0)
	eosinophilic change:respiratory epithelium	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		( 20)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammation:foreign body	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	inflammation:respiratory epithelium	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
	respiratory metaplasia:gland	10	0	0	0	10	0	0	0	7	0	0	0	7	0	0	0
		(100)	( 0)	( 0)	( 0)	(100)	( 0)	( 0)	( 0)	(100)	( 0)	( 0)	( 0)	(100)	( 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. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 13

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 10				444 ppm 10				1333 ppm 7				4000 ppm 7			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
nasal cavit			<10>				<10>				< 7>				< 7>			
	ulcer:respiratory epithelium		0 ( 0)	2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
larynx			<10>				<10>				< 7>				< 7>			
	inflammatory infiltration		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 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)
lung			<10>				<10>				< 7>				< 7>			
	congestion		2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration		3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	2 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)
(Hematopoietic system)																		
bone marrow			<10>				<10>				< 7>				< 7>			
	increased hematopoiesis		4 ( 40)	1 ( 10)	0 ( 0)	0 ( 0)	5 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 43)	1 ( 14)	0 ( 0)	0 ( 0)	5 ( 71)	0 ( 0)	0 ( 0)	0 ( 0)
spleen			<10>				<10>				< 7>				< 7>			
	deposit of hemosiderin		3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)	1 ( 10)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 43)	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. : 0739  
 ANIMAL : RAT F344/DuCrjCrj[F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 14

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	10				10				7				7			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
spleen			<10>				<10>				< 7>				< 7>			
	extramedullary hematopoiesis		3 ( 30)	1 ( 10)	3 ( 30)	0 ( 0)	1 ( 10)	2 ( 20)	2 ( 20)	0 ( 0)	1 ( 14)	0 ( 0)	1 ( 14)	0 ( 0)	2 ( 29)	0 ( 0)	3 ( 43)	0 ( 0)
(Circulatory system)																		
heart			<10>				<10>				< 7>				< 7>			
	thrombus		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	mineralization		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)
	myocardial fibrosis		7 ( 70)	1 ( 10)	0 ( 0)	0 ( 0)	7 ( 70)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 43)	1 ( 14)	0 ( 0)	0 ( 0)	5 ( 71)	1 ( 14)	0 ( 0)	0 ( 0)
(Digestive system)																		
stomach			<10>				<10>				< 7>				< 7>			
	ulcer:forestomach		2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	1 ( 14)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 15

Organ	Findings	Control No. of Animals on Study Grade				444 ppm 10				1333 ppm 7				4000 ppm 7			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
stomach		<10>				<10>				< 7>				< 7>			
	hyperplasia:forestomach	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	2 ( 29)	1 ( 14)	0 ( 0)	0 ( 0)	1 ( 14)	3 ( 43)	0 ( 0)	0 ( 0)
	erosion:glandular stomach	1 ( 10)	1 ( 10)	0 ( 0)	0 ( 0)	2 ( 20)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	ulcer:glandular stomach	2 ( 20)	0 ( 0)	1 ( 10)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:glandular stomach	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
liver		<10>				<10>				< 7>				< 7>			
	herniation	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 43)	0 ( 0)	0 ( 0)	0 ( 0)
	necrosis: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)	2 ( 29)	0 ( 0)	0 ( 0)
	necrosis:focal	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name	Control				444 ppm				1333 ppm				4000 ppm				
		No. of Animals on Study	10				10				7				7				
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Digestive system)																			
liver	acidophilic cell focus		<10>				<10>				< 7>				< 7>				
			0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	bile ductular proliferation		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
pancreas	atrophy		<10>				<10>				< 7>				< 7>				
			1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	islet cell hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Urinary system)																			
kidney	cyst		<10>				<10>				< 7>				< 7>				
			1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyaline droplet		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j[F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				444 ppm 10				1333 ppm 7				4000 ppm 7			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Urinary system)																		
kidney	scar		<10>				<10>				< 7>				< 7>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
	chronic nephropathy		3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 43)	0 ( 0)	0 ( 0)	0 ( 0)
(Endocrine system)																		
pituitary	angiectasis		<10>				<10>				< 7>				< 7>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	
	cyst		3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 20)	1 ( 10)	0 ( 0)	0 ( 0)	2 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	1 ( 14)	1 ( 14)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)
	Rathke pouch		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
thyroid	C-cell hyperplasia		<10>				<10>				< 7>				< 7>			
		1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 18

Organ	Findings	Group Name No. of Animals on Study Grade	Control 10				444 ppm 10				1333 ppm 7				4000 ppm 7			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
adrenal			<10>				<10>				< 7>				< 7>			
	peliosis-like lesion		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	extramedullary hematopoiesis		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:cortical cell		0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia:medulla		1 ( 10)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	focal fatty change:cortex		2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Reproductive system)																		
ovary			<10>				<10>				< 7>				< 7>			
	abscess		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
uterus			<10>				<10>				< 7>				< 7>			
	cystic endometrial hyperplasia		2 ( 20)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	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. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 19

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	10				10				7				7			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Nervous system)																		
brain	hemorrhage		<10>				<10>				< 7>				< 7>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
spinal cord	hemorrhage		<10>				<10>				< 7>				< 7>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Special sense organs/appendage)																		
eye	cataract		<10>				<10>				< 7>				< 7>			
		0 ( 0)	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 ( 14)	1 ( 14)	0 ( 0)	0 ( 0)
	retinal atrophy		5 ( 50)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 30)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 43)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 14)	1 ( 14)	1 ( 14)
Harder gl	keratitis		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 ( 29)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration		<10>				<10>				< 7>				< 7>			
		0 ( 0)	0 ( 0)	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 ( 14)	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 20

Organ	Findings	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study				No. of Animals on Study				No. of Animals on Study				No. of Animals on Study			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																	
Harder gl	hyperplasia	<10>				<10>				< 7>				< 7>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 14)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)
(Musculoskeletal system)																	
muscle	mineralization	<10>				<10>				< 7>				< 7>			
		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		( 0)	( 0)	( 0)	( 0)	( 10)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)	( 0)

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

(HPT150)

BAIS5

**TABLE L 6**

**HISTOPATHOLOGICAL FINDINGS:**

**NON-NEOPLASTIC LESIONS:**

**FEMALE: SACRIFICED ANIMALS**

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 13

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Integumentary system/appandage)																		
skin/app			<40>				<40>				<43>				<43>			
	erosion		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 )
	scab		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 )
(Respiratory system)																		
nasal cavit			<40>				<38>				<43>				<43>			
	thrombus		2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	mineralization		17 ( 43 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	11 ( 29 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	14 ( 33 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	13 ( 30 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	goblet cell hyperplasia		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	eosinophilic change:olfactory epithelium		11 ( 28 )	27 ( 68 )	2 ( 5 )	0 ( 0 )	15 ( 39 )	23 ( 61 )	0 ( 0 )	0 ( 0 )	16 ( 37 )	26 ( 60 )	1 ( 2 )	0 ( 0 )	17 ( 40 )	25 ( 58 )	0 ( 0 )	0 ( 0 )
	eosinophilic change:respiratory epithelium		8 ( 20 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	8 ( 21 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	8 ( 19 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	11 ( 26 )	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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 14

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	40				40				43				43			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
nasal cavit			<40>				<38>				<43>				<43>			
	inflammation:foreign body		1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammation:respiratory epithelium		9 ( 23)	1 ( 3)	0 ( 0)	0 ( 0)	13 ( 34)	0 ( 0)	0 ( 0)	0 ( 0)	8 ( 19)	0 ( 0)	0 ( 0)	0 ( 0)	10 ( 23)	0 ( 0)	0 ( 0)	0 ( 0)
	respiratory metaplasia:gland		40 (100)	0 ( 0)	0 ( 0)	0 ( 0)	38 (100)	0 ( 0)	0 ( 0)	0 ( 0)	43 (100)	0 ( 0)	0 ( 0)	0 ( 0)	43 (100)	0 ( 0)	0 ( 0)	0 ( 0)
larynx			<40>				<40>				<43>				<43>			
	inflammatory infiltration		9 ( 23)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 10)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)	0 ( 0)	0 ( 0)	0 * ( 0)
lung			<40>				<40>				<43>				<43>			
	inflammatory infiltration		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	accumulation of foamy cells		3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)
	bronchiolar-alveolar cell hyperplasia		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 15

Organ_____	Findings_____	Group Name No. of Animals on Study Grade				Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43			
		1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)				
(Hematopoietic system)																					
bone marrow		<40>				<38>				<43>				<43>							
	granulation	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)				
	increased hematopoiesis	3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	4 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)				
	myelofibrosis	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)				
spleen		<40>				<40>				<43>				<43>							
	congestion	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)				
	deposit of hemosiderin	21 ( 53)	0 ( 0)	0 ( 0)	0 ( 0)	31 ( 78)	0 ( 0)	0 ( 0)	0 * ( 0)	34 ( 79)	0 ( 0)	0 ( 0)	0 * ( 0)	34 ( 79)	0 ( 0)	0 ( 0)	0 * ( 0)				
	focal lymphoid hyperplasia	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)				
	extramedullary hematopoiesis	31 ( 78)	1 ( 3)	1 ( 3)	0 ( 0)	32 ( 80)	4 ( 10)	0 ( 0)	0 ( 0)	30 ( 70)	4 ( 9)	0 ( 0)	0 ( 0)	32 ( 74)	1 ( 2)	0 ( 0)	0 ( 0)				
(Circulatory system)																					
heart		<40>				<40>				<43>				<43>							
	thrombus	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)				

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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 16

Organ	Findings	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	40				40				43				43			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Circulatory system)																		
heart	mineralization		<40>				<40>				<43>				<43>			
		1	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 )
	myocardial fibrosis		21	0	0	0	20	1	0	0	16	0	0	0	12	1	0	0
		( 53 )	( 0 )	( 0 )	( 0 )	( 50 )	( 3 )	( 0 )	( 0 )	( 37 )	( 0 )	( 0 )	( 0 )	( 28 )	( 2 )	( 0 )	( 0 )	
(Digestive system)																		
stomach	ulcer:forestomach		<40>				<40>				<43>				<43>			
		1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		( 3 )	( 3 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia:forestomach		1	1	0	0	0	1	0	0	1	0	0	0	11	3	1	0 **
		( 3 )	( 3 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 26 )	( 7 )	( 2 )	( 0 )	
	erosion:glandular stomach		0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
		( 0 )	( 0 )	( 0 )	( 0 )	( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	ulcer:glandular stomach		3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		( 8 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	hyperplasia:glandular stomach		6	0	0	0	4	0	0	0	6	0	0	0	10	0	0	0
		( 15 )	( 0 )	( 0 )	( 0 )	( 10 )	( 0 )	( 0 )	( 0 )	( 14 )	( 0 )	( 0 )	( 0 )	( 23 )	( 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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
stomach	neuroendocrine cell hyperplasia:focal		<40>				<40>				<43>				<43>			
		0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
liver	herniation		<40>				<40>				<43>				<43>			
		7 ( 18 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	5 ( 13 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	10 ( 23 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	necrosis:central		<40>				<40>				<43>				<43>			
		0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	necrosis:focal		<40>				<40>				<43>				<43>			
		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
	lymphocytic infiltration		<40>				<40>				<43>				<43>			
		0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )
granulation		<40>				<40>				<43>				<43>				
	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
inflammatory cell nest		<40>				<40>				<43>				<43>				
	4 ( 10 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	2 ( 5 )	1 ( 3 )	0 ( 0 )	2 ( 5 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	3 ( 7 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	
clear cell focus		<40>				<40>				<43>				<43>				
	3 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 3 )	0 ( 0 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	1 ( 2 )	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 18

Organ_____	Findings_____	Group Name No. of Animals on Study				Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)			
(Digestive system)																					
liver			<40>				<40>				<43>				<43>						
	acidophilic cell focus	7 ( 18 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	5 ( 13 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	6 ( 14 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	5 ( 12 )	2 ( 5 )	2 ( 5 )	0 ( 0 )				
	basophilic cell focus	25 ( 63 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	24 ( 60 )	1 ( 3 )	0 ( 0 )	0 ( 0 )	28 ( 65 )	1 ( 2 )	0 ( 0 )	0 ( 0 )	19 ( 44 )	0 ( 0 )	0 ( 0 )	0 ( 0 )				
	bile duct 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 )				
	bile ductular proliferation	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 )				
	cholangiofibrosis	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )				
pancreas			<40>				<40>				<43>				<43>						
	atrophy	1 ( 3 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	3 ( 8 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	0 ( 0 )	2 ( 5 )	0 ( 0 )	0 ( 0 )	0 ( 0 )				
	islet cell hyperplasia	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 )				
(Urinary system)																					
kidney			<40>				<40>				<43>				<43>						
	hyaline droplet	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 19

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43				
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	
(Urinary system)																			
kidney			<40>				<40>				<43>				<43>				
	scar		0 ( 0)	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)
	chronic nephropathy		22 ( 55)	5 ( 13)	2 ( 5)	0 ( 0)	28 ( 70)	5 ( 13)	1 ( 3)	0 ( 0)	27 ( 63)	4 ( 9)	1 ( 2)	0 ( 0)	18 ( 42)	4 ( 9)	1 ( 2)	0 ( 0)	0 ( 0)
	mineralization:pelvis		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 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
(Endocrine system)																			
pituitary			<40>				<40>				<43>				<43>				
	angiectasis		2 ( 5)	2 ( 5)	0 ( 0)	0 ( 0)	3 ( 8)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	3 ( 7)	3 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)
	cyst		6 ( 15)	2 ( 5)	0 ( 0)	0 ( 0)	4 ( 10)	1 ( 3)	0 ( 0)	0 ( 0)	4 ( 9)	2 ( 5)	0 ( 0)	0 ( 0)	4 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)
	hyperplasia		2 ( 5)	4 ( 10)	1 ( 3)	0 ( 0)	11 ( 28)	3 ( 8)	0 ( 0)	0 * ( 0)	3 ( 7)	7 ( 16)	0 ( 0)	0 ( 0)	4 ( 9)	1 ( 2)	2 ( 5)	0 ( 0)	0 ( 0)
	Rathke pouch		3 ( 8)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	5 ( 12)	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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 20

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
thyroid	C-cell hyperplasia		<40>				<40>				<43>				<43>			
		7 ( 18)	0 ( 0)	1 ( 3)	0 ( 0)	5 ( 13)	1 ( 3)	0 ( 0)	0 ( 0)	9 ( 21)	2 ( 5)	0 ( 0)	0 ( 0)	5 ( 12)	1 ( 2)	0 ( 0)	0 ( 0)	
parathyroid	hyperplasia		<40>				<40>				<43>				<43>			
		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)	
adrenal	hyperplasia:cortical cell		<40>				<40>				<43>				<43>			
		3 ( 8)	3 ( 8)	0 ( 0)	0 ( 0)	3 ( 8)	2 ( 5)	1 ( 3)	0 ( 0)	6 ( 14)	1 ( 2)	0 ( 0)	0 ( 0)	5 ( 12)	2 ( 5)	0 ( 0)	0 ( 0)	
	hyperplasia:medulla		<40>				<40>				<43>				<43>			
		0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	
	focal fatty change:cortex		5 ( 13)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 7)	1 ( 2)	0 ( 0)	0 ( 0)	4 ( 9)	0 ( 0)	0 ( 0)	0 ( 0)
(Reproductive system)																		
ovary	cyst		<40>				<40>				<43>				<43>			
		2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	3 ( 7)	0 ( 0)	0 ( 0)	0 ( 0)	

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. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 21

Organ_____	Findings_____	Group Name	Control				444 ppm				1333 ppm				4000 ppm			
		No. of Animals on Study	40				40				43				43			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
(Reproductive system)																		
uterus			<40>				<40>				<43>				<43>			
	dilatation		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 )
	decidual 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 )
	cystic endometrial hyperplasia		3	0	0	0	7	0	0	0	12	0	0	0 *	7	0	0	0
			( 8 )	( 0 )	( 0 )	( 0 )	( 18 )	( 0 )	( 0 )	( 0 )	( 28 )	( 0 )	( 0 )	( 0 )	( 16 )	( 0 )	( 0 )	( 0 )
(Nervous system)																		
brain			<40>				<40>				<43>				<43>			
	hemorrhage		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			( 3 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )
	gliosis		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 0 )	( 2 )	( 0 )	( 0 )	( 0 )
(Special sense organs/appendage)																		
eye			<40>				<40>				<43>				<43>			
	cataract		4	1	0	0	2	1	1	0	1	2	0	0	1	3	0	0
		( 10 )	( 3 )	( 0 )	( 0 )	( 5 )	( 3 )	( 3 )	( 0 )	( 2 )	( 5 )	( 0 )	( 0 )	( 2 )	( 7 )	( 0 )	( 0 )	

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Group Name No. of Animals on Study Grade	Control 40				444 ppm 40				1333 ppm 43				4000 ppm 43			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)

(Special sense organs/appendage)

eye			<40>				<40>				<43>				<43>			
	retinal atrophy		36 ( 90)	1 ( 3)	1 ( 3)	0 ( 0)	35 ( 88)	3 ( 8)	0 ( 0)	0 ( 0)	39 ( 91)	2 ( 5)	1 ( 2)	0 ( 0)	38 ( 88)	3 ( 7)	1 ( 2)	0 ( 0)
	keratitis		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)
	iritis		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)
Harder gl			<40>				<40>				<43>				<43>			
	degeneration		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)	1 ( 3)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)	1 ( 2)	0 ( 0)	0 ( 0)	0 ( 0)
	inflammatory infiltration		0 ( 0)	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)
	lymphocytic infiltration		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)

(Musculoskeletal system)

bone			<40>				<38>				<43>				<43>			
	osteosclerosis		1 ( 3)	1 ( 3)	0 ( 0)	0 ( 0)	2 ( 5)	0 ( 0)	0 ( 0)	0 ( 0)	2 ( 5)	1 ( 2)	0 ( 0)	0 ( 0)	1 ( 2)	2 ( 5)	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

TABLE M 1

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



STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 1

Time-related Weeks	Items	Group Name	Control	444 ppm	1333 ppm	4000 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	0	0	0
	NO. OF ANIMALS WITH TUMORS		0	0	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		0	0	0	0
	NO. OF TOTAL TUMORS		0	0	0	0
53 - 78	NO. OF EXAMINED ANIMALS		2	3	1	3
	NO. OF ANIMALS WITH TUMORS		2	3	0	3
	NO. OF ANIMALS WITH SINGLE TUMORS		2	1	0	3
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	2	0	0
	NO. OF BENIGN TUMORS		0	4	0	0
	NO. OF MALIGNANT TUMORS		2	1	0	3
	NO. OF TOTAL TUMORS		2	5	0	3
79 - 104	NO. OF EXAMINED ANIMALS		9	11	13	6
	NO. OF ANIMALS WITH TUMORS		9	11	12	6
	NO. OF ANIMALS WITH SINGLE TUMORS		1	2	7	2
	NO. OF ANIMALS WITH MULTIPLE TUMORS		8	9	5	4
	NO. OF BENIGN TUMORS		20	18	12	11
	NO. OF MALIGNANT TUMORS		4	5	7	2
	NO. OF TOTAL TUMORS		24	23	19	13
105 - 105	NO. OF EXAMINED ANIMALS		39	36	36	41
	NO. OF ANIMALS WITH TUMORS		39	35	36	41
	NO. OF ANIMALS WITH SINGLE TUMORS		7	9	10	11
	NO. OF ANIMALS WITH MULTIPLE TUMORS		32	26	26	30
	NO. OF BENIGN TUMORS		85	66	74	82
	NO. OF MALIGNANT TUMORS		7	10	10	7
	NO. OF TOTAL TUMORS		92	76	84	89

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
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	444 ppm	1333 ppm	4000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		50	49	48	50
	NO. OF ANIMALS WITH SINGLE TUMORS		10	12	17	16
	NO. OF ANIMALS WITH MULTIPLE TUMORS		40	37	31	34
	NO. OF BENIGN TUMORS		105	88	86	93
	NO. OF MALIGNANT TUMORS		13	16	17	12
	NO. OF TOTAL TUMORS		118	104	103	105

(HPT070)

BAIS5

TABLE M 2

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 3

Time-related Weeks	Items	Group Name	Control	444 ppm	1333 ppm	4000 ppm
0 - 52	NO. OF EXAMINED ANIMALS		1	1	0	0
	NO. OF ANIMALS WITH TUMORS		1	1	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	1	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	0	0
	NO. OF BENIGN TUMORS		0	0	0	0
	NO. OF MALIGNANT TUMORS		1	1	0	0
	NO. OF TOTAL TUMORS		1	1	0	0
53 - 78	NO. OF EXAMINED ANIMALS		1	4	1	1
	NO. OF ANIMALS WITH TUMORS		1	4	1	1
	NO. OF ANIMALS WITH SINGLE TUMORS		0	4	1	1
	NO. OF ANIMALS WITH MULTIPLE TUMORS		1	0	0	0
	NO. OF BENIGN TUMORS		2	1	0	0
	NO. OF MALIGNANT TUMORS		0	3	1	1
	NO. OF TOTAL TUMORS		2	4	1	1
79 - 104	NO. OF EXAMINED ANIMALS		8	5	6	6
	NO. OF ANIMALS WITH TUMORS		8	5	6	6
	NO. OF ANIMALS WITH SINGLE TUMORS		4	2	3	5
	NO. OF ANIMALS WITH MULTIPLE TUMORS		4	3	3	1
	NO. OF BENIGN TUMORS		8	4	5	2
	NO. OF MALIGNANT TUMORS		5	4	5	5
	NO. OF TOTAL TUMORS		13	8	10	7
105 - 105	NO. OF EXAMINED ANIMALS		40	40	43	43
	NO. OF ANIMALS WITH TUMORS		28	27	26	33
	NO. OF ANIMALS WITH SINGLE TUMORS		13	17	10	21
	NO. OF ANIMALS WITH MULTIPLE TUMORS		15	10	16	12
	NO. OF BENIGN TUMORS		40	36	40	42
	NO. OF MALIGNANT TUMORS		8	5	6	7
	NO. OF TOTAL TUMORS		48	41	46	49

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 4

Time-related Weeks	Items	Group Name	Control	444 ppm	1333 ppm	4000 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		38	37	33	40
	NO. OF ANIMALS WITH SINGLE TUMORS		18	24	14	27
	NO. OF ANIMALS WITH MULTIPLE TUMORS		20	13	19	13
	NO. OF BENIGN TUMORS		50	41	45	44
	NO. OF MALIGNANT TUMORS		14	13	12	13
	NO. OF TOTAL TUMORS		64	54	57	57

(HPT070)

BAIS5

TABLE N 1

HISTOPATHOLOGICAL FINDINGS:  
NEOPLASTIC LESIONS: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Integumentary system/appandage)						
skin/app	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	trichoepithelioma		3 ( 6%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
	keratoacanthoma		2 ( 4%)	2 ( 4%)	1 ( 2%)	1 ( 2%)
	squamous cell carcinoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
subcutis	fibroma		<50> 6 ( 12%)	<50> 5 ( 10%)	<50> 2 ( 4%)	<50> 4 ( 8%)
	lipoma		3 ( 6%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
	leiomyoma		1 ( 2%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
	fibrosarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	liposarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	leiomyosarcoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	1 ( 2%)
	histiocytic sarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
(Respiratory system)						
lung	bronchiolar-alveolar adenoma		<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<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. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Respiratory system)						
lung	bronchiolar-alveolar carcinoma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
(Hematopoietic system)						
spleen	mononuclear cell leukemia		<50> 4 ( 8%)	<50> 5 ( 10%)	<50> 5 ( 10%)	<50> 2 ( 4%)
	hemangiosarcoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
(Digestive system)						
oral cavity	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	squamous cell carcinoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
tooth	ameloblastoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
tongue	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 2 ( 4%)
	squamous cell carcinoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	1 ( 2%)
esophagus	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)
stomach	squamous cell papilloma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 10 ( 20%)
	squamous cell carcinoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)

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



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrIj[F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Digestive system)						
small intes			<50>	<50>	<50>	<50>
	adenocarcinoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
liver			<50>	<50>	<50>	<50>
	hepatocellular adenoma		0 ( 0%)	1 ( 2%)	2 ( 4%)	1 ( 2%)
	hepatocellular carcinoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
pancreas			<50>	<50>	<50>	<50>
	islet cell adenoma		6 ( 12%)	4 ( 8%)	3 ( 6%)	5 ( 10%)
	islet cell adenocarcinoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
	acinar cell adenocarcinoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
(Urinary system)						
kidney			<50>	<50>	<50>	<50>
	renal cell carcinoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
urin bladd			<50>	<50>	<50>	<50>
	transitional cell papilloma		1 ( 2%)	1 ( 2%)	0 ( 0%)	1 ( 2%)
(Endocrine system)						
pituitary			<49>	<50>	<50>	<50>
	adenoma		16 ( 33%)	22 ( 44%)	16 ( 32%)	12 ( 24%)
	adenocarcinoma		1 ( 2%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
thyroid			<50>	<50>	<50>	<50>
	C-cell adenoma		18 ( 36%)	12 ( 24%)	13 ( 26%)	9 ( 18%)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Endocrine system)						
thyroid	follicular adenoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	C-cell carcinoma		1 ( 2%)	2 ( 4%)	4 ( 8%)	0 ( 0%)
	follicular adenocarcinoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
adrenal	pheochromocytoma		<50> 7 ( 14%)	<50> 5 ( 10%)	<50> 8 ( 16%)	<50> 2 ( 4%)
	cortical adenoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
	pheochromocytoma:malignant		3 ( 6%)	1 ( 2%)	1 ( 2%)	2 ( 4%)
(Reproductive system)						
testis	interstitial cell tumor		<50> 36 ( 72%)	<50> 31 ( 62%)	<50> 36 ( 72%)	<50> 39 ( 78%)
mammary gl	cystadenoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	fibroadenoma		1 ( 2%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
prep/cli gl	adenoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
(Nervous system)						
brain	glioma		<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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 5

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Nervous system)						
brain	meningioma:malignant		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
spinal cord	glioma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
(Special sense organs/appendage)						
Zymbal gl	Zmbal gland tumor:benign		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 2 ( 4%)
	Zymbal gland tumor:malignant		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
(Musculoskeletal system)						
bone	osteosarcoma		<50> 1 ( 2%)	<49> 0 ( 0%)	<50> 1 ( 2%)	<48> 1 ( 2%)
(Body cavities)						
peritoneum	mesothelioma		<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)

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

(HPT085)

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TABLE N 2

HISTOPATHOLOGICAL FINDINGS:  
NEOPLASTIC LESIONS: FEMALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Integumentary system/appandage)						
skin/app	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	trichoepithelioma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
subcutis	fibroma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 3 ( 6%)	<50> 1 ( 2%)
	schwannoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
(Respiratory system)						
nasal cavit	lipoma		<50> 1 ( 2%)	<48> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
lung	bronchiolar-alveolar adenoma		<50> 2 ( 4%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 3 ( 6%)
(Hematopoietic system)						
spleen	hemangioma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)
	mononuclear cell leukemia		5 ( 10%)	6 ( 12%)	7 ( 14%)	3 ( 6%)
(Digestive system)						
tongue	squamous cell papilloma		<50> 2 ( 4%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 2 ( 4%)
stomach	squamous cell papilloma		<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 2 ( 4%)	<50> 6 ( 12%)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Digestive system)						
stomach			<50>	<50>	<50>	<50>
	squamous cell carcinoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
liver			<50>	<50>	<50>	<50>
	hepatocellular adenoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
pancreas			<50>	<50>	<50>	<50>
	islet cell adenoma		2 ( 4%)	1 ( 2%)	0 ( 0%)	2 ( 4%)
	islet cell adenocarcinoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
(Urinary system)						
kidney			<50>	<50>	<50>	<50>
	renal cell adenoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	nephroblastoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	0 ( 0%)
urin bladd			<50>	<50>	<50>	<50>
	transitional cell papilloma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
(Endocrine system)						
pituitary			<50>	<50>	<50>	<50>
	adenoma		13 ( 26%)	11 ( 22%)	10 ( 20%)	12 ( 24%)
	adenocarcinoma		1 ( 2%)	1 ( 2%)	0 ( 0%)	3 ( 6%)
thyroid			<50>	<50>	<50>	<50>
	C-cell adenoma		6 ( 12%)	5 ( 10%)	7 ( 14%)	4 ( 8%)
	follicular adenoma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)

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

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrI]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 8

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Endocrine system)						
thyroid	C-cell carcinoma		<50> 2 ( 4%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 2 ( 4%)
adrenal	pheochromocytoma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 1 ( 2%)
	pheochromocytoma:malignant		1 ( 2%)	1 ( 2%)	0 ( 0%)	1 ( 2%)
(Reproductive system)						
ovary	adenoma		<50> 0 ( 0%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)
	granulosa cell tumor:malignant		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
uterus	endometrial stromal polyp		<50> 3 ( 6%)	<50> 6 ( 12%)	<50> 10 ( 20%)	<50> 6 ( 12%)
	adenocarcinoma		1 ( 2%)	0 ( 0%)	1 ( 2%)	2 ( 4%)
	leiomyosarcoma		0 ( 0%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
	histiocytic sarcoma		0 ( 0%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
	endometrial stromal sarcoma		1 ( 2%)	2 ( 4%)	0 ( 0%)	0 ( 0%)
vagina	squamous cell papilloma		<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 0 ( 0%)	<50> 0 ( 0%)
mammary gl	adenoma		<50> 1 ( 2%)	<50> 1 ( 2%)	<50> 0 ( 0%)	<50> 1 ( 2%)

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

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 9

Organ	Findings	Group Name No. of animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Reproductive system)						
mammary gl			<50>	<50>	<50>	<50>
	fibroadenoma		14 ( 28%)	12 ( 24%)	5 ( 10%)	4 ( 8%)
	adenocarcinoma		1 ( 2%)	0 ( 0%)	0 ( 0%)	1 ( 2%)
prep/cli gl			<50>	<50>	<50>	<50>
	adenoma		1 ( 2%)	0 ( 0%)	3 ( 6%)	0 ( 0%)
(Nervous system)						
brain			<50>	<50>	<50>	<50>
	glioma		1 ( 2%)	0 ( 0%)	1 ( 2%)	0 ( 0%)
(Body cavities)						
peritoneum			<50>	<50>	<50>	<50>
	fibroma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
	mesothelioma		0 ( 0%)	1 ( 2%)	0 ( 0%)	0 ( 0%)
< a > a : Number of animals examined at the site b ( c ) b : Number of animals with neoplasm c : b / a * 100						
(HPT085)						BA1S5



TABLE O 1

NEOPLASTIC LESIONS-INCIDENCE AND  
STATISTICAL ANALYSIS: MALE

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : skin/appendage TUMOR : trichoepithelioma				
Tumor rate				
Overall rates (a)	3/50 ( 6.0)	0/50 ( 0.0)	0/50 ( 0.0)	0/50 ( 0.0)
Adjusted rates (b)	7.69	0.0	0.0	0.0
Terminal rates (c)	3/39 ( 7.7)	0/36 ( 0.0)	0/36 ( 0.0)	0/41 ( 0.0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.9782			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1043			
Fisher Exact test (e)		P = 0.1212	P = 0.1212	P = 0.1212
SITE : skin/appendage TUMOR : squamous cell papilloma, trichoepithelioma, keratoacanthoma				
Tumor rate				
Overall rates (a)	5/50 ( 10.0)	2/50 ( 4.0)	2/50 ( 4.0)	1/50 ( 2.0)
Adjusted rates (b)	12.82	4.55	5.56	2.44
Terminal rates (c)	5/39 ( 12.8)	1/36 ( 2.8)	2/36 ( 5.6)	1/41 ( 2.4)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.9344			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1498			
Fisher Exact test (e)		P = 0.2180	P = 0.2180	P = 0.1022
SITE : skin/appendage TUMOR : squamous cell papilloma, trichoepithelioma, keratoacanthoma, squamous cell carcinoma				
Tumor rate				
Overall rates (a)	5/50 ( 10.0)	3/50 ( 6.0)	2/50 ( 4.0)	1/50 ( 2.0)
Adjusted rates (b)	12.82	6.82	5.56	2.44
Terminal rates (c)	5/39 ( 12.8)	2/36 ( 5.6)	2/36 ( 5.6)	1/41 ( 2.4)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.9531			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1148			
Fisher Exact test (e)		P = 0.3575	P = 0.2180	P = 0.1022

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : subcutis TUMOR : fibroma				
Tumor rate				
Overall rates (a)	6/50 ( 12. 0)	5/50 ( 10. 0)	2/50 ( 4. 0)	4/50 ( 8. 0)
Adjusted rates (b)	10. 26	11. 11	2. 78	9. 76
Terminal rates (c)	4/39 ( 10. 3)	4/36 ( 11. 1)	1/36 ( 2. 8)	4/41 ( 9. 8)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 9089			
Prevalence method (d)	P = 0. 5147			
Combined analysis (d)	P = 0. 7491			
Cochran-Armitage test (e)	P = 0. 5491			
Fisher Exact test (e)		P = 0. 5000	P = 0. 1343	P = 0. 3703
SITE : subcutis TUMOR : lipoma				
Tumor rate				
Overall rates (a)	3/50 ( 6. 0)	0/50 ( 0. 0)	0/50 ( 0. 0)	0/50 ( 0. 0)
Adjusted rates (b)	7. 69	0. 0	0. 0	0. 0
Terminal rates (c)	3/39 ( 7. 7)	0/36 ( 0. 0)	0/36 ( 0. 0)	0/41 ( 0. 0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 9782			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 1043			
Fisher Exact test (e)		P = 0. 1212	P = 0. 1212	P = 0. 1212
SITE : subcutis TUMOR : fibroma, fibrosarcoma				
Tumor rate				
Overall rates (a)	6/50 ( 12. 0)	5/50 ( 10. 0)	2/50 ( 4. 0)	5/50 ( 10. 0)
Adjusted rates (b)	10. 26	11. 11	2. 78	12. 20
Terminal rates (c)	4/39 ( 10. 3)	4/36 ( 11. 1)	1/36 ( 2. 8)	5/41 ( 12. 2)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 9089			
Prevalence method (d)	P = 0. 3477			
Combined analysis (d)	P = 0. 6038			
Cochran-Armitage test (e)	P = 0. 8596			
Fisher Exact test (e)		P = 0. 5000	P = 0. 1343	P = 0. 5000

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : subcutis TUMOR : lipoma, liposarcoma				
Tumor rate				
Overall rates (a)	3/50 ( 6.0)	0/50 ( 0.0)	0/50 ( 0.0)	1/50 ( 2.0)
Adjusted rates (b)	7.69	0.0	0.0	2.44
Terminal rates (c)	3/39 ( 7.7)	0/36 ( 0.0)	0/36 ( 0.0)	1/41 ( 2.4)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.7092			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.5630			
Fisher Exact test (e)		P = 0.1212	P = 0.1212	P = 0.3087
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	1/50 ( 2.0)	0/50 ( 0.0)	3/50 ( 6.0)
Adjusted rates (b)	2.56	2.78	0.0	7.32
Terminal rates (c)	1/39 ( 2.6)	1/36 ( 2.8)	0/36 ( 0.0)	3/41 ( 7.3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.0917			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1274			
Fisher Exact test (e)		P = 0.7525	P = 0.5000	P = 0.3087
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	1/50 ( 2.0)	1/50 ( 2.0)	3/50 ( 6.0)
Adjusted rates (b)	2.56	2.78	2.78	7.32
Terminal rates (c)	1/39 ( 2.6)	1/36 ( 2.8)	1/36 ( 2.8)	3/41 ( 7.3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.1159			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1721			
Fisher Exact test (e)		P = 0.7525	P = 0.7525	P = 0.3087

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates (a)	4/50 ( 8.0)	5/50 ( 10.0)	5/50 ( 10.0)	2/50 ( 4.0)
Adjusted rates (b)	5.13	5.56	8.33	2.44
Terminal rates (c)	2/39 ( 5.1)	2/36 ( 5.6)	3/36 ( 8.3)	1/41 ( 2.4)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.7990			
Prevalence method (d)	P = 0.7475			
Combined analysis (d)	P = 0.8680			
Cochran-Armitage test (e)	P = 0.2959			
Fisher Exact test (e)		P = 0.5000	P = 0.5000	P = 0.3389
SITE : tongue TUMOR : squamous cell papilloma, squamous cell carcinoma				
Tumor rate				
Overall rates (a)	0/50 ( 0.0)	0/50 ( 0.0)	1/50 ( 2.0)	3/50 ( 6.0)
Adjusted rates (b)	0.0	0.0	0.0	7.32
Terminal rates (c)	0/39 ( 0.0)	0/36 ( 0.0)	0/36 ( 0.0)	3/41 ( 7.3)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.3690			
Prevalence method (d)	P = 0.0040**?			
Combined analysis (d)	P = 0.0146*			
Cochran-Armitage test (e)	P = 0.0139*			
Fisher Exact test (e)		P = N. C.	P = 0.5000	P = 0.1212
SITE : stomach TUMOR : squamous cell papilloma				
Tumor rate				
Overall rates (a)	0/50 ( 0.0)	1/50 ( 2.0)	1/50 ( 2.0)	10/50 ( 20.0)
Adjusted rates (b)	0.0	2.78	2.78	24.39
Terminal rates (c)	0/39 ( 0.0)	1/36 ( 2.8)	1/36 ( 2.8)	10/41 ( 24.4)
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 = 0.5000	P = 0.5000	P = 0.0006**

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : stomach TUMOR : squamous cell papilloma, squamous cell carcinoma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	1/50 ( 2.0)	1/50 ( 2.0)	10/50 ( 20.0)
Adjusted rates (b)	2.56	2.78	2.78	24.39
Terminal rates (c)	1/39 ( 2.6)	1/36 ( 2.8)	1/36 ( 2.8)	10/41 ( 24.4)
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 = 0.7525	P = 0.7525	P = 0.0039**
SITE : liver TUMOR : hepatocellular adenoma, hepatocellular carcinoma				
Tumor rate				
Overall rates (a)	0/50 ( 0.0)	1/50 ( 2.0)	3/50 ( 6.0)	1/50 ( 2.0)
Adjusted rates (b)	0.0	2.78	8.33	2.44
Terminal rates (c)	0/39 ( 0.0)	1/36 ( 2.8)	3/36 ( 8.3)	1/41 ( 2.4)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.3771			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.7214			
Fisher Exact test (e)		P = 0.5000	P = 0.1212	P = 0.5000
SITE : pancreas TUMOR : islet cell adenoma				
Tumor rate				
Overall rates (a)	6/50 ( 12.0)	4/50 ( 8.0)	3/50 ( 6.0)	5/50 ( 10.0)
Adjusted rates (b)	13.95	8.51	8.33	11.11
Terminal rates (c)	4/39 ( 10.3)	3/36 ( 8.3)	3/36 ( 8.3)	3/41 ( 7.3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.5330			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.9719			
Fisher Exact test (e)		P = 0.3703	P = 0.2435	P = 0.5000

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : pancreas TUMOR : islet cell adenoma, islet cell adenocarcinoma				
Tumor rate				
Overall rates (a)	6/50 ( 12. 0)	5/50 ( 10. 0)	3/50 ( 6. 0)	5/50 ( 10. 0)
Adjusted rates (b)	13. 95	11. 11	8. 33	11. 11
Terminal rates (c)	4/39 ( 10. 3)	4/36 ( 11. 1)	3/36 ( 8. 3)	3/41 ( 7. 3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 5962			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 8494			
Fisher Exact test (e)		P = 0. 5000	P = 0. 2435	P = 0. 5000
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates (a)	16/49 ( 32. 7)	22/50 ( 44. 0)	16/50 ( 32. 0)	12/50 ( 24. 0)
Adjusted rates (b)	30. 00	39. 02	33. 33	22. 22
Terminal rates (c)	10/38 ( 26. 3)	14/36 ( 38. 9)	12/36 ( 33. 3)	8/41 ( 19. 5)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 8918			
Prevalence method (d)	P = 0. 8999			
Combined analysis (d)	P = 0. 9614			
Cochran-Armitage test (e)	P = 0. 1052			
Fisher Exact test (e)		P = 0. 1701	P = 0. 6119	P = 0. 2320
SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate				
Overall rates (a)	17/49 ( 34. 7)	23/50 ( 46. 0)	16/50 ( 32. 0)	12/50 ( 24. 0)
Adjusted rates (b)	30. 00	41. 67	33. 33	22. 22
Terminal rates (c)	10/38 ( 26. 3)	15/36 ( 41. 7)	12/36 ( 33. 3)	8/41 ( 19. 5)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 9264			
Prevalence method (d)	P = 0. 9187			
Combined analysis (d)	P = 0. 9762			
Cochran-Armitage test (e)	P = 0. 0650			
Fisher Exact test (e)		P = 0. 1733	P = 0. 4716	P = 0. 1716

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates (a)	18/50 ( 36. 0)	12/50 ( 24. 0)	13/50 ( 26. 0)	9/50 ( 18. 0)
Adjusted rates (b)	41. 03	24. 49	31. 71	21. 95
Terminal rates (c)	16/39 ( 41. 0)	8/36 ( 22. 2)	11/36 ( 30. 6)	9/41 ( 22. 0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 9672			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 0876			
Fisher Exact test (e)		P = 0. 1376	P = 0. 1937	P = 0. 0352*
SITE : thyroid TUMOR : C-cell carcinoma				
Tumor rate				
Overall rates (a)	1/50 ( 2. 0)	2/50 ( 4. 0)	4/50 ( 8. 0)	0/50 ( 0. 0)
Adjusted rates (b)	2. 56	5. 56	8. 33	0. 0
Terminal rates (c)	1/39 ( 2. 6)	2/36 ( 5. 6)	3/36 ( 8. 3)	0/41 ( 0. 0)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 3883			
Prevalence method (d)	P = 0. 8552			
Combined analysis (d)	P = 0. 8457			
Cochran-Armitage test (e)	P = 0. 3348			
Fisher Exact test (e)		P = 0. 5000	P = 0. 1811	P = 0. 5000
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates (a)	19/50 ( 38. 0)	14/50 ( 28. 0)	17/50 ( 34. 0)	9/50 ( 18. 0)
Adjusted rates (b)	43. 59	29. 27	40. 00	21. 95
Terminal rates (c)	17/39 ( 43. 6)	10/36 ( 27. 8)	14/36 ( 38. 9)	9/41 ( 22. 0)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 3883			
Prevalence method (d)	P = 0. 9864			
Combined analysis (d)	P = 0. 9861			
Cochran-Armitage test (e)	P = 0. 0422*			
Fisher Exact test (e)		P = 0. 1976	P = 0. 4176	P = 0. 0220*



STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates (a)	7/50 ( 14. 0)	5/50 ( 10. 0)	8/50 ( 16. 0)	2/50 ( 4. 0)
Adjusted rates (b)	15. 91	11. 11	21. 05	4. 65
Terminal rates (c)	5/39 ( 12. 8)	3/36 ( 8. 3)	7/36 ( 19. 4)	1/41 ( 2. 4)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 9438			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 1127			
Fisher Exact test (e)		P = 0. 3798	P = 0. 5000	P = 0. 0798
SITE : adrenal gland TUMOR : pheochromocytoma:malignant				
Tumor rate				
Overall rates (a)	3/50 ( 6. 0)	1/50 ( 2. 0)	1/50 ( 2. 0)	2/50 ( 4. 0)
Adjusted rates (b)	5. 13	2. 78	2. 78	4. 88
Terminal rates (c)	2/39 ( 5. 1)	1/36 ( 2. 8)	1/36 ( 2. 8)	2/41 ( 4. 9)
Statistical analysis				
Peto test				
Standard method (d)	P = 1. 0000 ?			
Prevalence method (d)	P = 0. 4023			
Combined analysis (d)	P = 0. 5404			
Cochran-Armitage test (e)	P = 0. 9342			
Fisher Exact test (e)		P = 0. 3087	P = 0. 3087	P = 0. 5000
SITE : adrenal gland TUMOR : pheochromocytoma, pheochromocytoma:malignant				
Tumor rate				
Overall rates (a)	10/50 ( 20. 0)	6/50 ( 12. 0)	9/50 ( 18. 0)	4/50 ( 8. 0)
Adjusted rates (b)	20. 45	13. 33	23. 68	9. 30
Terminal rates (c)	7/39 ( 17. 9)	4/36 ( 11. 1)	8/36 ( 22. 2)	3/41 ( 7. 3)
Statistical analysis				
Peto test				
Standard method (d)	P = 1. 0000 ?			
Prevalence method (d)	P = 0. 8989			
Combined analysis (d)	P = 0. 9257			
Cochran-Armitage test (e)	P = 0. 1464			
Fisher Exact test (e)		P = 0. 2070	P = 0. 5000	P = 0. 0739

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : testis TUMOR : interstitial cell tumor				
Tumor rate				
Overall rates (a)	36/50 ( 72. 0)	31/50 ( 62. 0)	36/50 ( 72. 0)	39/50 ( 78. 0)
Adjusted rates (b)	84. 62	72. 97	91. 67	88. 37
Terminal rates (c)	33/39 ( 84. 6)	26/36 ( 72. 2)	33/36 ( 91. 7)	36/41 ( 87. 8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 1904			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 2033			
Fisher Exact test (e)		P = 0. 1976	P = 0. 5880	P = 0. 3224
SITE : Zymbal gland TUMOR : Zmbal gland tumor:benign , Zymbal gland tumor:malignant				
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. 33	0. 0	2. 63	2. 44
Terminal rates (c)	0/39 ( 0. 0)	0/36 ( 0. 0)	0/36 ( 0. 0)	1/41 ( 2. 4)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 0189* ?			
Prevalence method (d)	P = 0. 3543			
Combined analysis (d)	P = 0. 0584			
Cochran-Armitage test (e)	P = 0. 0744			
Fisher Exact test (e)		P = 0. 5000	P = 0. 7525	P = 0. 3087

(HPT360A)

BA1S5

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

**TABLE O 2**

**NEOPLASTIC LESIONS-INCIDENCE AND  
STATISTICAL ANALYSIS: FEMALE**

STUDY No. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : subcutis TUMOR : fibroma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	0/50 ( 0.0)	3/50 ( 6.0)	1/50 ( 2.0)
Adjusted rates (b)	2.50	0.0	6.82	2.33
Terminal rates (c)	1/40 ( 2.5)	0/40 ( 0.0)	2/43 ( 4.7)	1/43 ( 2.3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.4082			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.8204			
Fisher Exact test (e)		P = 0.5000	P = 0.3087	P = 0.7525
SITE : subcutis TUMOR : fibroma, fibrosarcoma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	0/50 ( 0.0)	3/50 ( 6.0)	1/50 ( 2.0)
Adjusted rates (b)	2.50	0.0	6.82	2.33
Terminal rates (c)	1/40 ( 2.5)	0/40 ( 0.0)	2/43 ( 4.7)	1/43 ( 2.3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.4082			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.8204			
Fisher Exact test (e)		P = 0.5000	P = 0.3087	P = 0.7525
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates (a)	2/50 ( 4.0)	0/50 ( 0.0)	1/50 ( 2.0)	3/50 ( 6.0)
Adjusted rates (b)	5.00	0.0	2.27	6.98
Terminal rates (c)	2/40 ( 5.0)	0/40 ( 0.0)	0/43 ( 0.0)	3/43 ( 7.0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.1265			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.2124			
Fisher Exact test (e)		P = 0.2475	P = 0.5000	P = 0.5000

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates (a)	2/50 ( 4.0)	0/50 ( 0.0)	1/50 ( 2.0)	3/50 ( 6.0)
Adjusted rates (b)	5.00	0.0	2.27	6.98
Terminal rates (c)	2/40 ( 5.0)	0/40 ( 0.0)	0/43 ( 0.0)	3/43 ( 7.0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.1265			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.2124			
Fisher Exact test (e)		P = 0.2475	P = 0.5000	P = 0.5000
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates (a)	5/50 ( 10.0)	6/50 ( 12.0)	7/50 ( 14.0)	3/50 ( 6.0)
Adjusted rates (b)	5.00	5.00	4.65	6.98
Terminal rates (c)	2/40 ( 5.0)	2/40 ( 5.0)	2/43 ( 4.7)	3/43 ( 7.0)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.9654			
Prevalence method (d)	P = 0.3103			
Combined analysis (d)	P = 0.8404			
Cochran-Armitage test (e)	P = 0.3464			
Fisher Exact test (e)		P = 0.5000	P = 0.3798	P = 0.3575
SITE : stomach TUMOR : squamous cell papilloma				
Tumor rate				
Overall rates (a)	0/50 ( 0.0)	0/50 ( 0.0)	2/50 ( 4.0)	6/50 ( 12.0)
Adjusted rates (b)	0.0	0.0	4.65	13.95
Terminal rates (c)	0/40 ( 0.0)	0/40 ( 0.0)	2/43 ( 4.7)	6/43 ( 14.0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.0006**			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.0004**			
Fisher Exact test (e)		P = N. C.	P = 0.2475	P = 0.0133*

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 12

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : stomach TUMOR : squamous cell papilloma, squamous cell carcinoma				
Tumor rate				
Overall rates (a)	0/50 ( 0.0)	1/50 ( 2.0)	2/50 ( 4.0)	6/50 ( 12.0)
Adjusted rates (b)	0.0	2.50	4.65	13.95
Terminal rates (c)	0/40 ( 0.0)	1/40 ( 2.5)	2/43 ( 4.7)	6/43 ( 14.0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.0022**			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.0019**			
Fisher Exact test (e)		P = 0.5000	P = 0.2475	P = 0.0133*
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates (a)	13/50 ( 26.0)	11/50 ( 22.0)	10/50 ( 20.0)	12/50 ( 24.0)
Adjusted rates (b)	26.19	25.00	23.26	25.58
Terminal rates (c)	10/40 ( 25.0)	10/40 ( 25.0)	10/43 ( 23.3)	11/43 ( 25.6)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.6445			
Prevalence method (d)	P = 0.5215			
Combined analysis (d)	P = 0.5812			
Cochran-Armitage test (e)	P = 0.9809			
Fisher Exact test (e)		P = 0.4076	P = 0.3176	P = 0.5000
SITE : pituitary gland TUMOR : adenocarcinoma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	1/50 ( 2.0)	0/50 ( 0.0)	3/50 ( 6.0)
Adjusted rates (b)	2.50	2.50	0.0	4.65
Terminal rates (c)	1/40 ( 2.5)	1/40 ( 2.5)	0/43 ( 0.0)	2/43 ( 4.7)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1389			
Prevalence method (d)	P = 0.2140			
Combined analysis (d)	P = 0.0866			
Cochran-Armitage test (e)	P = 0.1274			
Fisher Exact test (e)		P = 0.7525	P = 0.5000	P = 0.3087

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 13

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate				
Overall rates (a)	14/50 ( 28. 0)	12/50 ( 24. 0)	10/50 ( 20. 0)	15/50 ( 30. 0)
Adjusted rates (b)	28. 57	27. 50	23. 26	30. 23
Terminal rates (c)	11/40 ( 27. 5)	11/40 ( 27. 5)	10/43 ( 23. 3)	13/43 ( 30. 2)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 3619			
Prevalence method (d)	P = 0. 4133			
Combined analysis (d)	P = 0. 3765			
Cochran-Armitage test (e)	P = 0. 6010			
Fisher Exact test (e)		P = 0. 4100	P = 0. 2415	P = 0. 5000
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates (a)	6/50 ( 12. 0)	5/50 ( 10. 0)	7/50 ( 14. 0)	4/50 ( 8. 0)
Adjusted rates (b)	13. 64	12. 50	15. 56	9. 30
Terminal rates (c)	5/40 ( 12. 5)	5/40 ( 12. 5)	6/43 ( 14. 0)	4/43 ( 9. 3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 7428			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 5386			
Fisher Exact test (e)		P = 0. 5000	P = 0. 5000	P = 0. 3703
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates (a)	8/50 ( 16. 0)	5/50 ( 10. 0)	8/50 ( 16. 0)	6/50 ( 12. 0)
Adjusted rates (b)	18. 18	12. 50	17. 78	12. 77
Terminal rates (c)	7/40 ( 17. 5)	5/40 ( 12. 5)	7/43 ( 16. 3)	5/43 ( 11. 6)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 6387			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 7783			
Fisher Exact test (e)		P = 0. 2768	P = 0. 6071	P = 0. 3871

STUDY No. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 SEX : FEMALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 14

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : uterus TUMOR : endometrial stromal polyp				
Tumor rate				
Overall rates (a)	3/50 ( 6. 0)	6/50 ( 12. 0)	10/50 ( 20. 0)	6/50 ( 12. 0)
Adjusted rates (b)	7. 50	12. 50	21. 74	11. 63
Terminal rates (c)	3/40 ( 7. 5)	5/40 ( 12. 5)	9/43 ( 20. 9)	5/43 ( 11. 6)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 2521			
Prevalence method (d)	P = 0. 3777			
Combined analysis (d)	P = 0. 3091			
Cochran-Armitage test (e)	P = 0. 5922			
Fisher Exact test (e)		P = 0. 2435	P = 0. 0357*	P = 0. 2435
SITE : mammary gland TUMOR : fibroadenoma				
Tumor rate				
Overall rates (a)	14/50 ( 28. 0)	12/50 ( 24. 0)	5/50 ( 10. 0)	4/50 ( 8. 0)
Adjusted rates (b)	28. 57	26. 67	11. 63	9. 30
Terminal rates (c)	11/40 ( 27. 5)	9/40 ( 22. 5)	5/43 ( 11. 6)	4/43 ( 9. 3)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 9984			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 0068**			
Fisher Exact test (e)		P = 0. 4100	P = 0. 0198*	P = 0. 0087**
SITE : mammary gland TUMOR : adenoma, fibroadenoma				
Tumor rate				
Overall rates (a)	15/50 ( 30. 0)	13/50 ( 26. 0)	5/50 ( 10. 0)	5/50 ( 10. 0)
Adjusted rates (b)	30. 61	28. 89	11. 63	11. 63
Terminal rates (c)	11/40 ( 27. 5)	10/40 ( 25. 0)	5/43 ( 11. 6)	5/43 ( 11. 6)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 9976			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 0091**			
Fisher Exact test (e)		P = 0. 4120	P = 0. 0114*	P = 0. 0114*



STUDY No. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 15

Group Name	Control	444 ppm	1333 ppm	4000 ppm
SITE : mammary gland TUMOR : adenoma, fibroadenoma, adenocarcinoma				
Tumor rate				
Overall rates (a)	15/50 ( 30.0)	13/50 ( 26.0)	5/50 ( 10.0)	6/50 ( 12.0)
Adjusted rates (b)	30.61	28.89	11.63	11.63
Terminal rates (c)	11/40 ( 27.5)	10/40 ( 25.0)	5/43 ( 11.6)	5/43 ( 11.6)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1381			
Prevalence method (d)	P = 0.9972			
Combined analysis (d)	P = 0.9918			
Cochran-Armitage test (e)	P = 0.0222*			
Fisher Exact test (e)		P = 0.4120	P = 0.0114*	P = 0.0239*
SITE : preputial/clitoral gland TUMOR : adenoma				
Tumor rate				
Overall rates (a)	1/50 ( 2.0)	0/50 ( 0.0)	3/50 ( 6.0)	0/50 ( 0.0)
Adjusted rates (b)	0.0	0.0	4.65	0.0
Terminal rates (c)	0/40 ( 0.0)	0/40 ( 0.0)	2/43 ( 4.7)	0/43 ( 0.0)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.7167			
Prevalence method (d)	P = 0.4922			
Combined analysis (d)	P = 0.7032			
Cochran-Armitage test (e)	P = 0.5628			
Fisher Exact test (e)		P = 0.5000	P = 0.3087	P = 0.5000

(HPT360A)

BAIS5

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

TABLE P 1

HISTOPATHOLOGICAL FINDINGS:  
METASTASIS OF TUMOR: MALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Integumentary system/appandage)						
subcutis	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
(Respiratory system)						
nasal cavit	leukemic cell infiltration		<50> 0	<49> 0	<50> 1	<48> 0
lung	leukemic cell infiltration		<50> 2	<50> 5	<50> 5	<50> 1
	metastasis:adrenal tumor		1	0	1	0
	metastasis:thyroid tumor		0	0	2	0
	metastasis:subcutis tumor		0	0	0	1
	metastasis:bone tumor		0	0	1	0
	metastasis:Zymbal gland tumor		0	0	0	1
(Hematopoietic system)						
bone marrow	leukemic cell infiltration		<50> 2	<50> 4	<50> 5	<50> 2
lymph node	leukemic cell infiltration		<50> 2	<50> 1	<50> 4	<50> 0
	metastasis:thyroid tumor		0	0	3	0
(Circulatory system)						
heart	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 2

Organ	Findings	Group Name No. of Animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Digestive system)						
salivary gl	metastasis:subcutis tumor		<50> 0	<50> 0	<50> 0	<50> 1
small intes	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
large intes	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
liver	leukemic cell infiltration		<50> 2	<50> 4	<50> 5	<50> 2
pancreas	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
(Urinary system)						
kidney	leukemic cell infiltration		<50> 0	<50> 2	<50> 1	<50> 0
urin bladd	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
(Endocrine system)						
pituitary	metastasis:subcutis tumor		<50> 0	<50> 0	<50> 1	<50> 0
thyroid	metastasis:subcutis tumor		<50> 0	<50> 0	<50> 0	<50> 1
adrenal	leukemic cell infiltration		<50> 0	<50> 0	<50> 0	<50> 1
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : MALE

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

PAGE : 3

Group Name		Control	444 ppm	1333 ppm	4000 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
(Endocrine system)					
adrenal	metastasis:bone tumor	<50> 0	<50> 0	<50> 1	<50> 0
(Reproductive system)					
testis	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 0
semin ves	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 0
	metastasis:subcutis tumor	0	0	0	1
prostate	metastasis:subcutis tumor	<50> 0	<50> 0	<50> 0	<50> 1
(Nervous system)					
brain	leukemic cell infiltration	<50> 0	<50> 3	<50> 1	<50> 0
	metastasis:pituitary tumor	1	1	0	0
spinal cord	leukemic cell infiltration	<50> 0	<50> 3	<50> 1	<50> 0
(Musculoskeletal system)					
bone	metastasis:subcutis tumor	<50> 0	<50> 0	<50> 1	<50> 0
(Body cavities)					
pleura	metastasis:subcutis tumor	<50> 0	<50> 0	<50> 0	<50> 1

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

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
REPORT TYPE : A1  
SEX : MALE

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

PAGE : 4

		Group Name	Control	444 ppm	1333 ppm	4000 ppm
Organ	Findings	No. of Animals on Study	50	50	50	50
(Body cavities)						
pleura	metastasis:bone tumor		<50> 0	<50> 0	<50> 1	<50> 0
peritoneum	metastasis:bone tumor		<50> 0	<50> 0	<50> 1	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

(JPT150)

BAIS5

TABLE P 2

HISTOPATHOLOGICAL FINDINGS:  
METASTASIS OF TUMOR: FEMALE

STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name No. of Animals on Study	Control 50	444 ppm 50	1333 ppm 50	4000 ppm 50
(Respiratory system)						
lung			<50>	<50>	<50>	<50>
	leukemic cell infiltration		3	3	6	1
	metastasis:uterus tumor		0	0	0	1
	metastasis:adrenal tumor		1	0	0	0
	metastasis:thyroid tumor		0	0	1	1
(Hematopoietic system)						
bone marrow			<50>	<50>	<50>	<50>
	leukemic cell infiltration		5	3	3	0
lymph node			<50>	<50>	<50>	<50>
	leukemic cell infiltration		1	2	1	0
	metastasis:thyroid tumor		0	0	1	1
spleen			<50>	<50>	<50>	<50>
	metastasis:uterus tumor		0	0	0	1
(Digestive system)						
tongue			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	0	1
small intes			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	1	0	0
liver			<50>	<50>	<50>	<50>
	leukemic cell infiltration		5	2	7	2
	metastasis:uterus tumor		0	0	0	2
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					



STUDY NO. : 0739  
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
 REPORT TYPE : A1  
 SEX : FEMALE

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

PAGE : 6

Group Name		Control	444 ppm	1333 ppm	4000 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
{Digestive system}					
pancreas		<50>	<50>	<50>	<50>
	metastasis:uterus tumor	0	0	0	1
{Urinary system}					
kidney		<50>	<50>	<50>	<50>
	leukemic cell infiltration	2	1	2	0
{Endocrine system}					
pituitary		<50>	<50>	<50>	<50>
	leukemic cell infiltration	1	0	1	0
{Reproductive system}					
ovary		<50>	<50>	<50>	<50>
	leukemic cell infiltration	1	0	0	0
	metastasis:uterus tumor	0	0	0	1
	metastasis:adrenal tumor	0	0	0	1
uterus		<50>	<50>	<50>	<50>
	leukemic cell infiltration	1	0	1	0
vagina		<50>	<50>	<50>	<50>
	leukemic cell infiltration	0	0	1	0
{Nervous system}					
brain		<50>	<50>	<50>	<50>
	leukemic cell infiltration	0	2	2	0

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

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]  
REPORT TYPE : A1  
SEX : FEMALE

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

PAGE : 7

Group Name		Control	444 ppm	1333 ppm	4000 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
(Nervous system)					
brain		<50>	<50>	<50>	<50>
	metastasis:pituitary tumor	1	1	0	2
spinal cord		<50>	<50>	<50>	<50>
	leukemic cell infiltration	1	2	2	0
(Body cavities)					
peritoneum		<50>	<50>	<50>	<50>
	metastasis:uterus tumor	0	1	0	1
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

(JPT150)

BAIS5

TABLE Q 1

HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC  
LESIONS IN JAPAN BIOASSAY RESEARCH CENTER:  
F344/DuCr1Cr1j MALE RATS

TABLE Q 1 HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC LESIONS IN JAPAN BIOASSAY RESEARCH CENTER : F344/DuCrIcrlj MALE RATS

Organs Tumors	No. of animals examined	No. of animals bearing tumor	Incidence (%)	Min. - Max. (%)
Tongue	2948			
Squamous cell papilloma <sup>1)</sup>		10	0.3	0 - 4
Squamous carcinoma <sup>2)</sup>		2	0.1	0 - 2
1) + 2)		12	0.4	0 - 6
Esophagous	2948			
Squamous cell papilloma		0	0.0	0
Stomach	2948			
Squamous cell papilloma <sup>1)</sup>		5	0.2	0 - 2
Squamous carcinoma <sup>2)</sup>		6	0.2	0 - 2
1) + 2)		11	0.4	0 - 2
Zymbal gland	2948			
Zymbal gland tumor: benign <sup>1)</sup>		11	0.4	0 - 4
Zymbal gland tumor: malignant <sup>2)</sup>		16	0.5	0 - 4
1) + 2)		27	0.9	0 - 4

59 carcinogenicity studies examined in Japan Bioassay Research Center were used.

Study No. : 0043, 0059, 0061, 0063, 0065, 0067, 0095, 0104, 0115, 0130, 0141, 0158, 0162, 0189, 0205, 0210, 0224, 0242, 0246, 0267, 0269, 0278, 0284, 0288, 0294, 0296, 0318, 0328, 0342, 0347, 0365, 0371, 0396, 0399, 0401, 0407, 0417, 0421, 0437, 0448, 0457, 0461, 0497, 0535, 0560, 0579, 0581, 0610, 0612, 0641, 0667, 0675, 0684, 0686, 0691, 0704, 0711, 0731, 0753

TABLE Q 2

HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC  
LESIONS IN JAPAN BIOASSAY RESEARCH CENTER:  
F344/DuCr1Cr1j FEMALE RATS

TABLE Q 2 HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC LESIONS IN JAPAN BIOASSAY RESEARCH CENTER : F344/DuCrI CrIj FEMALE RATS

Organs Tumors	No. of animals examined	No. of animals bearing tumor	Incidence (%)	Min. - Max. (%)
Stomach	2747			
Squamous cell papilloma		10	0.4	0 - 4
Squamous carcinoma		0	0.0	0

55 carcinogenicity studies examined in Japan Bioassay Research Center were used.

Study No. : 0043, 0059, 0061, 0063, 0065, 0067, 0095, 0104, 0115, 0130, 0141, 0158, 0162, 0189, 0205, 0210, 0224, 0242, 0246, 0267, 0269, 0278, 0284, 0296, 0303, 0318, 0328, 0342, 0347, 0365, 0371, 0399, 0401, 0417, 0421, 0437, 0448, 0457, 0461, 0497, 0535, 0560, 0579, 0610, 0612, 0641, 0667, 0675, 0684, 0686, 0691, 0704, 0711, 0731, 0753

TABLE R 1

CAUSE OF DEATH: MALE

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]  
SEX : MALE

COUSE OF DEATH (SUMMARY)  
(0-105W)

PAGE : 1

Group Name	Control	444 ppm	1333 ppm	4000 ppm
Number of Dead and Moribund Animal	11	14	14	9
digestive sy les	0	0	1	0
pneumonia	0	0	0	1
peritonitis	0	0	1	0
tumor d:leukemia	2	3	2	1
tumor d:subcutis	2	1	2	1
tumor d:spleen	0	1	0	0
tumor d:tongue	0	0	1	0
tumor d:small intes	0	0	1	0
tumor d:pituitary	5	6	4	2
tumor d:thyroid	0	1	1	0
tumor d:adrenal	1	0	0	0
tumor d:brain	0	1	0	1
tumor d:spinal cord	0	1	0	0
tumor d:Zymbal gl	0	0	0	2
tumor d:bone	1	0	1	1

(B10120)

BAIS5



**TABLE R 2**

**CAUSE OF DEATH: FEMALE**

STUDY NO. : 0739  
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]  
SEX : FEMALE

COUSE OF DEATH (SUMMARY)  
(0-105W)

PAGE : 2

Group Name	Control	444 ppm	1333 ppm	4000 ppm
Number of Dead and Moribund Animal	10	10	7	7
cardiovascular les	1	0	0	0
tumor d:leukemia	3	4	5	0
tumor d:kidney	1	0	0	0
tumor d:pituitary	2	1	0	2
tumor d:adrenal	1	1	0	1
tumor d:uterus	1	3	1	3
tumor d:mammary gl	0	0	0	1
tumor d:prep/cli gl	1	0	1	0
tumor d:peritoneum	0	1	0	0

(B10120)

BAIS5