

メチルアミンのラットを用いた吸入によるがん原性試験報告書

試験番号：0731

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TABLE A

CONCENTRATIONS OF METHYLAMINE
IN THE INHALATION CHAMBER
OF THE 2-YEAR INHALATION STUDY

CONCENTRATIONS OF METHYLAMINE IN THE INHALATION
CHAMBER OF THE 2-YEAR INHALATION STUDY

Group Name	Concentration(ppm) Mean \pm S.D.
Control	0.0 \pm 0.0
5 ppm	5.0 \pm 0.1
20 ppm	20.2 \pm 0.3
80 ppm	80.4 \pm 0.9

TABLE B1

SURVIVAL ANIMAL NUMBERS : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
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
5 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
20 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
80 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. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104
SEX : MALE

SURVIVAL ANIMAL NUMBERS

PAGE : 2

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
5 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
20 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	49/50 98.0	49/50 98.0
80 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. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
 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
5 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
20 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	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
80 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. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
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	50/50 100.0	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
5 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
20 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	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
80 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. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
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	50/50 100.0	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	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
5 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
20 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	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0
80 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. : 0731
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	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	48/50 96.0	48/50 96.0	47/50 94.0	47/50 94.0
5 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
20 ppm	50	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	47/50 94.0	46/50 92.0	45/50 90.0	45/50 90.0
80 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	48/50 96.0	48/50 96.0	48/50 96.0	48/50 96.0	47/50 94.0	46/50 92.0
Number of survival/ Number of effective animals Survival rate(%)															

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STUDY NO. : 0731
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	46/50	46/50	46/50	46/50	45/50	45/50	44/50	44/50	44/50	44/50	44/50	43/50	43/50	43/50
		92.0	92.0	92.0	92.0	90.0	90.0	88.0	88.0	88.0	88.0	88.0	86.0	86.0	86.0
5 ppm	50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	49/50	49/50	48/50	47/50	47/50	47/50
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	98.0	96.0	94.0	94.0	94.0
20 ppm	50	44/50	44/50	44/50	44/50	44/50	44/50	44/50	43/50	43/50	42/50	41/50	40/50	40/50	39/50
		88.0	88.0	88.0	88.0	88.0	88.0	88.0	86.0	86.0	84.0	82.0	80.0	80.0	78.0
80 ppm	50	46/50	46/50	45/50	45/50	45/50	45/50	44/50	44/50	44/50	42/50	42/50	41/50	41/50	40/50
		92.0	92.0	90.0	90.0	90.0	90.0	88.0	88.0	88.0	84.0	84.0	82.0	82.0	80.0
Number of survival/ Number of effective animals															
Survival rate(%)															

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STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI(CrI) [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	41/50	40/50	39/50	38/50	38/50	38/50
		86.0	82.0	80.0	78.0	76.0	76.0	76.0
5 ppm	50	47/50	47/50	47/50	46/50	44/50	42/50	42/50
		94.0	94.0	94.0	92.0	88.0	84.0	84.0
20 ppm	50	39/50	39/50	38/50	38/50	38/50	38/50	38/50
		78.0	78.0	76.0	76.0	76.0	76.0	76.0
80 ppm	50	40/50	39/50	39/50	39/50	38/50	36/50	34/50
		80.0	78.0	78.0	78.0	76.0	72.0	68.0
Number of survival/ Number of effective animals Survival rate(%)								

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TABLE B2

SURVIVAL ANIMAL NUMBERS : FEMALE

SURVIVAL ANIMAL NUMBERS

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	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
5 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
20 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
80 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(%)													

BAIS4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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
5 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
20 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
80 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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SURVIVAL ANIMAL NUMBERS

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	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
5 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
20 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
80 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(%)													

BAIS4

STUDY NO. : 0731
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	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
5 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	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
20 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
80 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)

BAIS4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [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	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
5 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	49/50 98.0	49/50 98.0	48/50 96.0	48/50 96.0	48/50 96.0
20 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	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
80 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)

BA1S4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [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	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	49/50 98.0	48/50 96.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0
5 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	47/50 94.0	47/50 94.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	44/50 88.0	43/50 86.0
20 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	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0	46/50 92.0
80 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	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0
Number of survival/ Number of effective animals Survival rate (%)															

(HAN360)

BAIS4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1 104
 SEX : FEMALE

SURVIVAL ANIMAL NUMBERS

PAGE : 15

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 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	47/50 94.0	46/50 92.0	44/50 88.0	44/50 88.0	43/50 86.0
5 ppm	50	43/50 86.0	43/50 86.0	43/50 86.0	42/50 84.0	42/50 84.0	42/50 84.0	42/50 84.0	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0	41/50 82.0
20 ppm	50	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	45/50 90.0	44/50 88.0	44/50 88.0	44/50 88.0	44/50 88.0	44/50 88.0
80 ppm	50	49/50 98.0	49/50 98.0	49/50 98.0	49/50 98.0	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	43/50 86.0	43/50 86.0
Number of survival/ Number of effective animals Survival rate(%)															

(HAN360)

BAIS4

STUDY NO. : 0731
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	43/50	43/50	43/50	41/50	41/50	41/50	41/50
		86.0	86.0	86.0	82.0	82.0	82.0	82.0
5 ppm	50	41/50	40/50	39/50	37/50	37/50	37/50	37/50
		82.0	80.0	78.0	74.0	74.0	74.0	74.0
20 ppm	50	44/50	44/50	44/50	43/50	41/50	39/50	38/50
		88.0	88.0	88.0	86.0	82.0	78.0	76.0
80 ppm	50	43/50	43/50	42/50	41/50	41/50	39/50	38/50
		86.0	86.0	84.0	82.0	82.0	78.0	76.0
Number of survival/ Number of effective animals Survival rate(%)								

(HAN360)

BAIS4

TABLE C1

CLINICAL OBSERVATION : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1]
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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 2

Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	1	1	1	1	2	2	2	2	2

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 3

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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 4

Clinical sign	Group Name	Administration Week-day													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crij [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 5

Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2

STUDY NO. : 0731
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				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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	2	2	2	2	2	2	2	2	2	2	2	3	4	4	5
	80 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	2	2	2	3	3	4
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	1	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILORECTION	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	80 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1

STUDY NO. : 0731
 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													
		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	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	20 ppm	5	5	5	5	5	5	5	5	6	6	7	7	8	8
	80 ppm	2	3	3	3	3	4	4	4	5	5	5	5	6	6
MORIBUND SACRIFICE	Control	4	4	4	5	5	6	6	6	6	6	6	6	6	6
	5 ppm	0	0	0	0	0	0	0	1	1	2	2	2	2	2
	20 ppm	1	1	1	1	1	1	2	2	2	3	3	3	3	3
	80 ppm	2	2	2	2	2	2	2	2	3	3	4	4	4	4
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARALYTIC GAIT	Control	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILOERECTION	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	20 ppm	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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	2	3	4	5	5	5
	5 ppm	1	1	1	2	3	3
	20 ppm	8	8	8	8	8	8
	80 ppm	7	7	7	7	8	9
MORIBUND SACRIFICE	Control	7	7	7	7	7	7
	5 ppm	2	2	3	4	5	5
	20 ppm	3	4	4	4	4	4
	80 ppm	4	4	4	5	6	7
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	5 ppm	0	0	0	1	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	1	1	0	0
PARALYTIC GAIT	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	1
WASTING	Control	1	0	0	0	0	0
	5 ppm	0	1	0	0	0	0
	20 ppm	1	0	0	0	0	0
	80 ppm	0	0	1	0	0	0
SOILED	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
PILORECTION	Control	1	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	1
EXOPHTHALMOS	Control	0	0	0	0	0	1
	5 ppm	0	0	0	0	0	0
	20 ppm	1	2	2	2	2	2
	80 ppm	1	1	1	1	1	1

STUDY NO. : 0731
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
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrjCrij [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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													
		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
CATARACT	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
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
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	20 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	2	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 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				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	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	20 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
CORNEAL OPACITY	Control	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
	80 ppm	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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												
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	5 ppm	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	20 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1
	5 ppm	1	1	1	1	1	1	1	2	2	2	2	2	1	1	2
	20 ppm	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	2	2	2	1	1	1	1	1	1	1	1	3	3	3	3
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	1	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
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
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	5 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	20 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	1	1	1	1	1	2	2	2	2	3	3	4	5	5
	5 ppm	2	1	1	1	2	2	4	4	3	3	3	4	5	5
	20 ppm	2	2	2	2	2	2	2	2	2	2	2	3	5	6
	80 ppm	3	4	3	3	3	3	3	3	3	3	4	6	5	5
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1	2	2	2	1	0	0	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
M. MANDIBULAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	20 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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
CATARACT	Control	2	2	2	2	2	3
	5 ppm	4	4	4	4	4	4
	20 ppm	2	2	2	3	3	3
	80 ppm	2	2	2	2	2	2
CORNEAL OPACITY	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	1	1	1	1	1
	80 ppm	0	0	0	0	0	0
ANTERIOR CHAMBER OPACITY	Control	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
EXTERNAL MASS	Control	5	5	8	9	9	9
	5 ppm	5	5	5	5	5	6
	20 ppm	6	6	6	6	7	8
	80 ppm	5	6	7	7	7	7
INTERNAL MASS	Control	0	0	0	0	0	0
	5 ppm	1	1	1	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. EYE	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0
M. PERI-MOUTH	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	1
M. MANDIBULAR	Control	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	1

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [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. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 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				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. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 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													
		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. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrI]
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. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. SCROTUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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													
		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. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. SCROTUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0731
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													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	1	1	1	1	1	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. SCROTUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0731
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													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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	1	1	1	2	2
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	0	0
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	5 ppm	0	0	0	0	1	1	1	1	1	1	1	2	2	2
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	2	2	2
M. ANTERIOR DORSUM	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	1	1	1	1	2	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. SCROTUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

STUDY NO. : 0731
 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					
		99-7	100-7	101-7	102-7	103-7	104-7
M. PERI EAR	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. NECK	Control	0	0	1	1	1	1
	5 ppm	0	0	0	0	0	1
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. BREAST	Control	2	2	2	2	2	2
	5 ppm	2	2	2	2	2	2
	20 ppm	0	0	0	0	1	2
	80 ppm	0	0	1	1	1	1
M. ABDOMEN	Control	1	1	2	3	3	3
	5 ppm	2	2	2	2	2	2
	20 ppm	2	2	2	2	2	3
	80 ppm	2	2	2	2	2	2
M. ANTERIOR DORSUM	Control	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	2	2	2	2	2	2
	80 ppm	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1
	80 ppm	1	2	2	2	2	1
M. HINDLIMB	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	1
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. SCROTUM	Control	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
 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
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 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													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 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												
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
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
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

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Clinical sign	Group Name	Administration Week-day													
		57-7	58-7	59-7	60-7	61-7	62-7	63-7	64-7	65-7	66-7	67-7	68-7	69-7	70-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrj]
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 30

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
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	1	0	0	1	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	80 ppm	0	0	1	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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 31

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
EDEMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
IRREGULAR BREATHING	Control	0	0	0	0	1	1	1	1	1	2	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : MALE

PAGE : 32

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
EDEMA	Control	0	0	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
ANEMIA	Control	0	1	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0
	5 ppm	1	1	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	1	1
	80 ppm	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1
	20 ppm	1	2	2	2	1	1
	80 ppm	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
IRREGULAR BREATHING	Control	1	0	0	0	0	0
	5 ppm	1	1	1	0	0	0
	20 ppm	1	0	0	0	0	0
	80 ppm	0	0	1	2	0	2
RESPIRATORY SOUND ABNOR	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	1	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIcrij [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 33

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 34

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 35

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 36

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 37

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 38

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 39

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : MALE

PAGE : 40

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	1

(HAN190)

BAIS 4

TABLE C2

CLINICAL OBSERVATION : FEMALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 41

Clinical sign	Group Name	Administration Week-day													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 42

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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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				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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	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	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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													
		43-7	44-7	45-7	46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 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
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	2	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
DEATH	Control	0	0	0	0	0	0	0	0	1	2	2	2	2	2
	5 ppm	0	0	0	0	0	1	1	2	2	2	2	2	2	2
	20 ppm	1	1	1	1	1	1	1	2	3	3	3	3	3	3
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	5 ppm	2	2	2	2	2	2	2	2	2	2	2	4	5	5
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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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	3	3	4	4
	5 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	20 ppm	3	3	3	3	3	3	4	4	5	5	5	5	5	5
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	2	2	2
MORIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	2	3	3	3	3
	5 ppm	5	5	6	6	6	6	7	7	7	7	7	7	7	7
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	1	1	1	2	2	2	2	2	2	3	3	5	5	5
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRONE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WASTING	Control	0	0	0	0	0	0	1	1	1	1	0	0	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	1	0	0	1	1	0	0	0	0
	5 ppm	1	1	0	0	0	0	0	0	0	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOILED PERI-GENITALIA	Control	1	1	1	0	1	1	1	1	2	2	1	1	1	1
	5 ppm	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	20 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0

STUDY NO. : 0731
 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
DEATH	Control	4	4	6	6	6	6
	5 ppm	3	3	4	4	4	4
	20 ppm	5	5	6	7	8	8
	80 ppm	2	3	4	4	6	6
MORIBUND SACRIFICE	Control	3	3	3	3	3	3
	5 ppm	7	8	9	9	9	9
	20 ppm	1	1	1	2	3	4
	80 ppm	5	5	5	5	5	6
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0
	5 ppm	1	0	0	0	0	0
	20 ppm	0	1	0	1	0	0
	80 ppm	0	1	0	0	0	0
PRONE	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	1	0	0	0	0
	80 ppm	0	0	0	0	0	0
ATAXIC GAIT	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	1	1	0	0
	80 ppm	0	0	0	0	0	0
WASTING	Control	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	0
	80 ppm	0	0	1	1	1	1
SOILED	Control	1	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	0
	80 ppm	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	1	0	0
SOILED PERI-GENITALIA	Control	2	1	1	1	2	1
	5 ppm	0	0	0	0	0	1
	20 ppm	1	1	2	2	1	0
	80 ppm	0	1	0	1	1	1

STUDY NO. : 0731
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													
		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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	5 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	20 ppm	1	1	1	1	1	2	2	2	3	3	3	3	3	3
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

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
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	5 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	20 ppm	3	3	3	3	3	4	4	4	4	4	4	4	4	4
	80 ppm	1	1	1	2	2	2	2	2	3	3	3	3	3	3
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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											
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	2	2	3	3	3	3	4	4	4	4	4	4	4	4
	5 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	20 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80 ppm	3	3	4	4	4	4	5	5	5	5	5	5	5	5
EXTERNAL MASS	Control	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	2	2	2	2	2	2
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day													
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	82-7	83-7	84-7
EXOPHTHALMOS	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	4	4	4	4	4	4	4	4	4	5	5	5	5	5
	5 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	20 ppm	5	5	5	5	5	5	5	5	4	4	4	4	4	4
	80 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
EXTERNAL MASS	Control	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	2	2	2	2	2	2	2	2	2	3	4	4	4	4
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	20 ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [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	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	5	5	5	5	5	5	5	5	6	5	5	5	4	4
	5 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	20 ppm	4	4	4	4	4	4	4	5	5	5	5	5	5	5
	80 ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
EXTERNAL MASS	Control	2	2	2	2	2	3	3	3	3	3	1	1	3	3
	5 ppm	1	3	3	3	3	4	4	4	4	4	4	5	5	5
	20 ppm	0	1	1	1	1	1	2	2	3	3	3	3	3	3
	80 ppm	4	4	5	7	7	9	9	10	12	12	12	11	11	12
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. EAR	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	5 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. BREAST	Control	1	1	1	1	1	1	1	1	1	1	0	0	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	1	1	1	1	1	1	1	2	2	2	2	2	2
	80 ppm	2	2	2	2	2	4	4	4	6	6	6	6	6	6
M. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	5 ppm	0	2	2	2	2	2	2	2	2	2	2	2	2	2
	20 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	80 ppm	0	0	1	2	2	2	2	2	2	2	2	3	3	4
M. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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					
		99-7	100-7	101-7	102-7	103-7	104-7
EXOPHTHALMOS	Control	1	1	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
CATARACT	Control	4	4	3	3	3	3
	5 ppm	3	3	3	3	3	3
	20 ppm	5	5	4	4	4	4
	80 ppm	5	5	5	5	5	5
EXTERNAL MASS	Control	3	4	5	5	6	6
	5 ppm	5	5	5	6	6	6
	20 ppm	3	3	3	4	3	3
	80 ppm	12	13	13	13	12	12
INTERNAL MASS	Control	0	0	0	0	0	0
	5 ppm	0	1	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. EAR	Control	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. NECK	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0
M. BREAST	Control	1	1	2	2	2	2
	5 ppm	0	0	0	0	0	0
	20 ppm	2	2	2	3	2	2
	80 ppm	6	7	7	7	7	7
M. ABDOMEN	Control	1	2	2	2	3	3
	5 ppm	2	2	2	3	3	3
	20 ppm	1	1	1	1	1	1
	80 ppm	4	4	4	4	3	3
M. ANTERIOR DORSUM	Control	0	0	0	0	0	0
	5 ppm	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [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. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
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													
		15-7	16-7	17-7	18-7	19-7	20-7	21-7	22-7	23-7	24-7	25-7	26-7	27-7	28-7
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HIND LIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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												
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. HIND LIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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Clinical sign	Group Name	Administration Week-day				46-7	47-7	48-7	49-7	50-7	51-7	52-7	53-7	54-7	55-7	56-7
		43-7	44-7	45-7												
M. POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. HIND LIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ANEMIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
CRUSTA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrjCrlj [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												
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 62

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. POSTERIOR DORSUM	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
M. HIND LIMB	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	1	1	1	1	1
M. GENITALIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1		1	1	1	1	1	1	1	1	1	1	1
ANEMIA	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	1	1	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
JAUNDICE	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	1	1	1	1	1	1	1
CRUSTA	Control	0	0	0		0	0	0	0	0	0	1	1	1	1	1
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0		0	0	0	1	0	0	0	0	0	0	0
	5 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0		0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 63

Clinical sign	Group Name	Administration Week-day													
		85-7	86-7	87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	1	1	1	1	1	1	1	1	0	0	0
M. HIND LIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. GENITALIA	Control	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	2	2	2	2	1	1	1
ANEMIA	Control	0	0	0	0	0	0	1	1	1	0	0	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	80 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0
JAUNDICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ULCER	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1	1	1	1	1	1	0	0	0
CRUSTA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 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
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	1	1	1	0	0	0	0
	5 ppm	0	1	0	0	0	1	0	0	0	0	0	0	1	2
	20 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	80 ppm	0	0	0	0	0	0	0	0	1	0	1	0	0	0

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
 ALL ANIMALS

SEX : FEMALE

PAGE : 64

Clinical sign	Group Name	Administration Week-day					
		99-7	100-7	101-7	102-7	103-7	104-7
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
M. HIND LIMB	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
M. GENITALIA	Control	1	1	1	1	1	1
	5 ppm	1	1	1	1	1	1
	20 ppm	0	0	0	0	0	0
	80 ppm	1	1	1	1	1	1
ANEMIA	Control	1	1	1	1	1	2
	5 ppm	0	0	1	1	1	1
	20 ppm	1	1	0	0	0	0
	80 ppm	0	1	0	0	0	0
JAUNDICE	Control	0	0	0	0	0	0
	5 ppm	1	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	1
ULCER	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0
CRUSTA	Control	1	1	1	1	1	1
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	0	0	0	0	1	1
HEMORRHAGE	Control	0	0	0	1	0	1
	5 ppm	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0
	80 ppm	1	0	0	0	0	0
IRREGULAR BREATHING	Control	0	1	1	1	1	1
	5 ppm	1	0	1	1	1	1
	20 ppm	1	1	2	2	1	0
	80 ppm	0	0	1	1	1	1

STUDY NO. : 0731
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													
		1-7	2-7	3-7	4-7	5-7	6-7	7-7	8-7	9-7	10-7	11-7	12-7	13-7	14-7
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 66

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 67

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

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

PAGE : 68

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

(HAN190)

BAIS 4

STUDY NO. : 0731
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			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
		57-7	58-7	59-7														
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(HAN190)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
REPORT TYPE : A1 104

CLINICAL OBSERVATION (SUMMARY)
ALL ANIMALS

SEX : FEMALE

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

(HAN190)

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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
SUBNORMAL TEMP	Control	0	0	0	0	0	0
	5 ppm	0	0	0	0	0	0
	20 ppm	0	1	0	0	0	0
	80 ppm	0	1	0	0	0	0

(HAN190)

BAIS 4

TABLE D1

BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 1

Week-Day on Study	Control		5 ppm			20 ppm			80 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.
0-0	122 (50)	50/50	122 (50)	100	50/50	122 (50)	100	50/50	122 (50)	100	50/50
1-7	155 (50)	50/50	154 (50)	99	50/50	155 (50)	100	50/50	152 (50)	98	50/50
2-7	189 (50)	50/50	187 (50)	99	50/50	188 (50)	99	50/50	184 (50)	97	50/50
3-7	215 (50)	50/50	212 (50)	99	50/50	213 (50)	99	50/50	210 (50)	98	50/50
4-7	238 (50)	50/50	235 (50)	99	50/50	234 (50)	98	50/50	232 (50)	97	50/50
5-7	257 (50)	50/50	253 (50)	98	50/50	252 (50)	98	50/50	250 (50)	97	50/50
6-7	271 (50)	50/50	265 (50)	98	50/50	265 (50)	98	50/50	265 (50)	98	50/50
7-7	284 (50)	50/50	280 (50)	99	50/50	278 (50)	98	50/50	279 (50)	98	50/50
8-7	295 (50)	50/50	291 (50)	99	50/50	290 (50)	98	50/50	291 (50)	99	50/50
9-7	305 (50)	50/50	302 (50)	99	50/50	300 (50)	98	50/50	302 (50)	99	50/50
10-7	312 (50)	50/50	309 (50)	99	50/50	309 (50)	99	50/50	311 (50)	100	50/50
11-7	319 (50)	50/50	316 (50)	99	50/50	316 (50)	99	50/50	318 (50)	100	50/50
12-7	326 (50)	50/50	322 (50)	99	50/50	323 (50)	99	50/50	325 (50)	100	50/50
13-7	332 (50)	50/50	329 (50)	99	50/50	330 (50)	99	50/50	332 (50)	100	50/50
14-7	336 (50)	50/50	334 (50)	99	50/50	335 (50)	100	50/50	338 (50)	101	50/50
18-7	354 (50)	50/50	351 (50)	99	50/50	351 (50)	99	50/50	354 (50)	100	50/50
22-7	367 (50)	50/50	366 (50)	100	50/50	365 (50)	99	50/50	368 (50)	100	50/50
26-7	380 (50)	50/50	379 (50)	100	50/50	379 (49)	100	49/50	382 (50)	101	50/50
30-7	390 (50)	50/50	389 (50)	100	50/50	391 (49)	100	49/50	393 (50)	101	50/50
34-7	400 (50)	50/50	401 (50)	100	50/50	401 (49)	100	49/50	402 (50)	101	50/50
38-7	405 (50)	50/50	407 (50)	100	50/50	409 (49)	101	49/50	407 (50)	100	50/50
42-7	411 (50)	50/50	414 (50)	101	50/50	414 (49)	101	49/50	413 (50)	100	50/50
46-7	419 (50)	50/50	423 (50)	101	50/50	421 (49)	100	49/50	421 (50)	100	50/50
50-7	425 (50)	50/50	427 (50)	100	50/50	424 (49)	100	49/50	426 (50)	100	50/50
54-7	429 (50)	50/50	432 (50)	101	50/50	428 (49)	100	49/50	431 (50)	100	50/50
58-7	432 (50)	50/50	436 (50)	101	50/50	433 (48)	100	48/50	435 (50)	101	50/50
62-7	437 (49)	49/50	441 (50)	101	50/50	439 (48)	100	48/50	438 (50)	100	50/50
66-7	440 (49)	49/50	444 (50)	101	50/50	441 (48)	100	48/50	442 (50)	100	50/50
70-7	442 (49)	49/50	448 (50)	101	50/50	445 (48)	101	48/50	445 (50)	101	50/50
74-7	445 (49)	49/50	451 (50)	101	50/50	449 (47)	101	47/50	447 (49)	100	49/50
78-7	444 (49)	49/50	452 (50)	102	50/50	448 (47)	101	47/50	447 (48)	101	48/50
82-7	443 (47)	47/50	452 (50)	102	50/50	458 (45)	103	45/50	449 (47)	101	47/50
86-7	439 (46)	46/50	447 (50)	102	50/50	451 (44)	103	44/50	447 (45)	102	45/50
90-7	432 (44)	44/50	441 (50)	102	50/50	438 (44)	101	44/50	441 (44)	102	44/50
94-7	424 (44)	44/50	436 (48)	103	48/50	436 (41)	103	41/50	437 (42)	103	42/50
98-7	414 (43)	43/50	428 (47)	103	47/50	425 (39)	103	39/50	422 (40)	102	40/50
102-7	412 (38)	38/50	419 (44)	102	44/50	421 (38)	102	38/50	414 (38)	100	38/50
104-7	405 (38)	38/50	412 (42)	102	42/50	415 (38)	102	38/50	411 (34)	101	34/50

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

Av. Wt. : g

TABLE D2

BODY WEIGHT CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

MEAN BODY WEIGHTS AND SURVIVAL

PAGE : 2

Week-Day on Study	Control			5 ppm			20 ppm			80 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.
0-0	99 (50)	50/50		99 (50)	100	50/50	99 (50)	100	50/50	99 (50)	100	50/50
1-7	114 (50)	50/50		113 (50)	99	50/50	113 (50)	99	50/50	112 (50)	98	50/50
2-7	128 (50)	50/50		126 (50)	98	50/50	125 (50)	98	50/50	125 (50)	98	50/50
3-7	136 (50)	50/50		135 (50)	99	50/50	134 (50)	99	50/50	134 (50)	99	50/50
4-7	145 (50)	50/50		143 (50)	99	50/50	142 (50)	98	50/50	143 (50)	99	50/50
5-7	153 (50)	50/50		150 (50)	98	50/50	149 (50)	97	50/50	150 (50)	98	50/50
6-7	157 (50)	50/50		155 (50)	99	50/50	153 (50)	97	50/50	156 (50)	99	50/50
7-7	161 (50)	50/50		159 (50)	99	50/50	158 (50)	98	50/50	160 (50)	99	50/50
8-7	165 (50)	50/50		162 (50)	98	50/50	161 (50)	98	50/50	164 (50)	99	50/50
9-7	169 (50)	50/50		167 (50)	99	50/50	164 (50)	97	50/50	168 (50)	99	50/50
10-7	172 (50)	50/50		171 (50)	99	50/50	169 (50)	98	50/50	172 (50)	100	50/50
11-7	175 (50)	50/50		175 (50)	100	50/50	172 (50)	98	50/50	176 (50)	101	50/50
12-7	177 (50)	50/50		177 (50)	100	50/50	175 (50)	99	50/50	178 (50)	101	50/50
13-7	179 (50)	50/50		179 (50)	100	50/50	178 (50)	99	50/50	181 (50)	101	50/50
14-7	181 (50)	50/50		182 (50)	101	50/50	179 (50)	99	50/50	182 (50)	101	50/50
18-7	188 (50)	50/50		189 (50)	101	50/50	187 (50)	99	50/50	189 (50)	101	50/50
22-7	193 (50)	50/50		196 (50)	102	50/50	194 (50)	101	50/50	195 (50)	101	50/50
26-7	198 (50)	50/50		201 (50)	102	50/50	199 (50)	101	50/50	200 (50)	101	50/50
30-7	203 (50)	50/50		207 (50)	102	50/50	205 (50)	101	50/50	205 (50)	101	50/50
34-7	208 (50)	50/50		213 (50)	102	50/50	209 (50)	100	50/50	210 (50)	101	50/50
38-7	212 (50)	50/50		217 (50)	102	50/50	213 (50)	100	50/50	215 (50)	101	50/50
42-7	213 (50)	50/50		221 (50)	104	50/50	217 (50)	102	50/50	219 (50)	103	50/50
46-7	219 (50)	50/50		226 (50)	103	50/50	224 (50)	102	50/50	225 (50)	103	50/50
50-7	223 (50)	50/50		229 (50)	103	50/50	228 (50)	102	50/50	230 (50)	103	50/50
54-7	229 (50)	50/50		236 (49)	103	49/50	233 (50)	102	50/50	235 (50)	103	50/50
58-7	235 (50)	50/50		242 (49)	103	49/50	238 (50)	101	50/50	241 (50)	103	50/50
62-7	239 (50)	50/50		248 (49)	104	49/50	243 (50)	102	50/50	246 (50)	103	50/50
66-7	243 (50)	50/50		253 (49)	104	49/50	249 (49)	102	49/50	251 (50)	103	50/50
70-7	249 (50)	50/50		259 (48)	104	48/50	255 (48)	102	48/50	257 (50)	103	50/50
74-7	254 (50)	50/50		264 (48)	104	48/50	262 (48)	103	48/50	263 (50)	104	50/50
78-7	259 (49)	49/50		269 (46)	104	46/50	267 (47)	103	47/50	267 (50)	103	50/50
82-7	270 (47)	47/50		276 (44)	102	44/50	276 (46)	102	46/50	276 (49)	102	49/50
86-7	275 (47)	47/50		281 (43)	102	43/50	279 (46)	101	46/50	279 (49)	101	49/50
90-7	279 (47)	47/50		282 (42)	101	42/50	281 (46)	101	46/50	282 (48)	101	48/50
94-7	285 (46)	46/50		285 (41)	100	41/50	282 (44)	99	44/50	285 (46)	100	46/50
98-7	281 (43)	43/50		284 (41)	101	41/50	280 (44)	100	44/50	288 (43)	102	43/50
102-7	280 (41)	41/50		285 (37)	102	37/50	278 (41)	99	41/50	293 (41)	105	41/50
104-7	277 (41)	41/50		283 (37)	102	37/50	282 (38)	102	38/50	293 (38)	106	38/50

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

Av. Wt. : g

TABLE D3

BODY WEIGHT CHANGES : MALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration		week-day									
	0-0		1-7		2-7		3-7		4-7		5-7	
Control	122±	5	155±	7	189±	9	215±	10	238±	10	257±	11
5 ppm	122±	5	154±	7	187±	8	212±	10	235±	10	253±	11
20 ppm	122±	5	155±	7	188±	9	213±	10	234±	11	252±	12*
80 ppm	122±	5	152±	6*	184±	8*	210±	9	232±	9*	250±	10**

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
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-day													
	7-7		8-7		9-7		10-7		11-7		12-7		13-7			
Control	284±	13	295±	13	305±	14	312±	13	319±	14	326±	16	332±	16		
5 ppm	280±	12	291±	14	302±	15	309±	15	316±	16	322±	16	329±	16		
20 ppm	278±	14	290±	15	300±	16	309±	16	316±	17	323±	17	330±	16		
80 ppm	279±	11	291±	11	302±	13	311±	14	318±	14	325±	14	332±	14		

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration		week-day									
	14-7		18-7		22-7		26-7		30-7		34-7	
Control	336±	16	354±	18	367±	18	380±	19	390±	20	400±	21
5 ppm	334±	17	351±	18	366±	19	379±	21	389±	25	401±	23
20 ppm	335±	17	351±	17	365±	19	379±	19	391±	20	401±	21
80 ppm	338±	15	354±	16	368±	17	382±	17	393±	17	402±	17

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 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-day									
	42-7		46-7		50-7		54-7		58-7		62-7	
Control	411±	23	419±	24	425±	25	429±	26	432±	25	437±	25
5 ppm	414±	24	423±	26	427±	27	432±	28	436±	30	441±	29
20 ppm	414±	23	421±	25	424±	25	428±	29	433±	26	439±	26
80 ppm	413±	19	421±	19	426±	19	431±	20	435±	20	438±	20

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration		week-day									
	70-7		74-7		78-7		82-7		86-7		90-7	
Control	442±	25	445±	27	444±	30	443±	30	439±	31	432±	40
5 ppm	448±	29	451±	28	452±	28	452±	29	447±	30	441±	32
20 ppm	445±	27	449±	28	448±	35	458±	40	451±	25	438±	32
80 ppm	445±	19	447±	20	447±	20	449±	23	447±	22	441±	22

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration		week-day			
	98-7		102-7		104-7	
Control	414±	44	412±	27	405±	40
5 ppm	428±	30	419±	31	412±	37
20 ppm	425±	43	421±	37	415±	41
80 ppm	422±	30	414±	38	411±	51

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

Test of Dunnett

(HAN260)

BAIS 4

TABLE D4

BODY WEIGHT CHANGES : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration		week-day									
	0-0		1-7		2-7		3-7		4-7		5-7	
Control	99±	4	114±	5	128±	6	136±	7	145±	8	153±	10
5 ppm	99±	4	113±	4	126±	5	135±	5	143±	5	150±	6
20 ppm	99±	4	113±	4	125±	6	134±	7	142±	7	149±	8
80 ppm	99±	4	112±	4	125±	5*	134±	6	143±	6	150±	6

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration week-day		7-7		8-7		9-7		10-7		11-7		12-7		13-7	
Control	161±	12	165±	13	169±	13	172±	14	175±	13	177±	13	179±	14		
5 ppm	159±	7	162±	8	167±	8	171±	9	175±	9	177±	9	179±	9		
20 ppm	158±	11	161±	11	164±	12	169±	12	172±	12	175±	13	178±	13		
80 ppm	160±	7	164±	8	168±	8	172±	9	176±	9	178±	9	181±	9		

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration week-day		14-7		18-7		22-7		26-7		30-7		34-7		38-7	
Control	181±	13	188±	14	193±	14	198±	15	203±	16	208±	16	212±	17		
5 ppm	182±	10	189±	10	196±	11	201±	10	207±	11	213±	12	217±	13		
20 ppm	179±	14	187±	13	194±	14	199±	14	205±	15	209±	16	213±	16		
80 ppm	182±	10	189±	10	195±	10	200±	10	205±	11	210±	11	215±	13		

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 10

Group Name	Administration		week-day									
	42-7		46-7		50-7		54-7		58-7		62-7	
Control	213±	17	219±	18	223±	19	229±	21	235±	22	239±	23
5 ppm	221±	14	226±	14	229±	14	236±	16	242±	17	248±	19
20 ppm	217±	16	224±	17	228±	17	233±	18	238±	19	243±	21
80 ppm	219±	13	225±	13	230±	14	235±	15	241±	16	246±	18

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration		week-day									
	70-7		74-7		78-7		82-7		86-7		90-7	
Control	249±	24	254±	25	259±	27	270±	25	275±	26	279±	28
5 ppm	259±	20	264±	21	269±	23	276±	24	281±	23	282±	25
20 ppm	255±	22	262±	24	267±	24	276±	24	279±	28	281±	30
80 ppm	257±	20	263±	20	267±	22	276±	19	279±	21	282±	22

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration		week-day			
	98-7		102-7		104-7	
Control	281±	28	280±	30	277±	33
5 ppm	284±	29	285±	30	283±	30
20 ppm	280±	32	278±	31	282±	22
80 ppm	288±	32	293±	46	293±	55

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

Test of Dunnett

(HAN260)

BAIS 4

TABLE E1

FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

MEAN FOOD CONSUMPTION (FC) AND SURVIVAL

PAGE : 1

Week-Day on Study	Control		5 ppm		No. of Surviv.	20 ppm		No. of Surviv.	80 ppm		No. of Surviv.
	Av. FC.	No. of Surviv. <50>	Av. FC.	% of cont. <50>		Av. FC.	% of cont. <50>		Av. FC.	% of cont. <50>	
1-7	15.0 (50)	50/50	15.4 (50)	103	50/50	15.0 (50)	100	50/50	14.6 (50)	97	50/50
2-7	16.9 (50)	50/50	17.3 (50)	102	50/50	17.1 (50)	101	50/50	16.5 (50)	98	50/50
3-7	16.7 (50)	50/50	17.0 (50)	102	50/50	16.7 (50)	100	50/50	16.2 (50)	97	50/50
4-7	17.4 (50)	50/50	17.9 (50)	103	50/50	17.2 (50)	99	50/50	17.1 (50)	98	50/50
5-7	17.6 (50)	50/50	17.9 (50)	102	50/50	17.3 (50)	98	50/50	17.3 (50)	98	50/50
6-7	17.5 (50)	50/50	17.2 (50)	98	50/50	17.1 (50)	98	50/50	17.3 (50)	99	50/50
7-7	17.6 (50)	50/50	17.3 (50)	98	50/50	17.2 (50)	98	50/50	17.5 (50)	99	50/50
8-7	17.1 (50)	50/50	17.0 (50)	99	50/50	16.7 (50)	98	50/50	17.1 (50)	100	50/50
9-7	17.3 (50)	50/50	17.2 (50)	99	50/50	17.2 (50)	99	50/50	17.4 (50)	101	50/50
10-7	16.9 (50)	50/50	16.8 (50)	99	50/50	17.0 (50)	101	50/50	17.0 (50)	101	50/50
11-7	16.8 (50)	50/50	16.7 (50)	99	50/50	16.9 (49)	101	50/50	16.9 (50)	101	50/50
12-7	16.6 (50)	50/50	16.4 (50)	99	50/50	16.6 (50)	100	50/50	16.8 (50)	101	50/50
13-7	16.6 (50)	50/50	16.3 (50)	98	50/50	16.6 (50)	100	50/50	16.8 (50)	101	50/50
14-7	16.4 (50)	50/50	16.3 (50)	99	50/50	16.3 (50)	99	50/50	16.6 (50)	101	50/50
18-7	16.4 (50)	50/50	16.3 (50)	99	50/50	16.1 (50)	98	50/50	16.3 (50)	99	50/50
22-7	16.9 (50)	50/50	16.8 (50)	99	50/50	16.5 (50)	98	50/50	16.7 (50)	99	50/50
26-7	17.1 (50)	50/50	17.1 (50)	100	50/50	17.0 (49)	99	49/50	16.9 (50)	99	50/50
30-7	16.9 (50)	50/50	16.5 (50)	98	50/50	16.8 (49)	99	49/50	16.7 (50)	99	50/50
34-7	16.9 (50)	50/50	17.0 (50)	101	50/50	16.9 (49)	100	49/50	16.7 (50)	99	50/50
38-7	16.6 (50)	50/50	16.7 (50)	101	50/50	16.6 (49)	100	49/50	16.4 (50)	99	50/50
42-7	17.0 (50)	50/50	16.8 (50)	99	50/50	16.7 (49)	98	49/50	16.7 (50)	98	50/50
46-7	17.0 (50)	50/50	17.0 (50)	100	50/50	16.8 (49)	99	49/50	16.6 (50)	98	50/50
50-7	16.9 (50)	50/50	16.9 (50)	100	50/50	16.4 (49)	97	49/50	16.8 (50)	99	50/50
54-7	17.1 (50)	50/50	17.3 (50)	101	50/50	16.8 (49)	98	49/50	17.0 (50)	99	50/50
58-7	17.3 (50)	50/50	17.3 (50)	100	50/50	17.2 (48)	99	48/50	17.1 (50)	99	50/50
62-7	17.3 (49)	49/50	17.5 (50)	101	50/50	17.4 (48)	101	48/50	16.9 (50)	98	50/50
66-7	17.3 (49)	49/50	17.5 (50)	101	50/50	17.3 (48)	100	48/50	17.2 (50)	99	50/50
70-7	17.3 (49)	49/50	17.7 (50)	102	50/50	17.6 (48)	102	48/50	16.9 (50)	98	50/50
74-7	17.2 (49)	49/50	17.2 (50)	100	50/50	17.3 (47)	101	47/50	16.9 (49)	98	49/50
78-7	17.0 (49)	49/50	17.3 (50)	102	50/50	17.0 (47)	100	47/50	16.8 (48)	99	48/50
82-7	17.2 (47)	47/50	17.6 (50)	102	50/50	17.6 (45)	102	45/50	17.0 (47)	99	47/50
86-7	17.1 (46)	46/50	17.1 (50)	100	50/50	17.3 (44)	101	44/50	16.3 (45)	95	45/50
90-7	17.3 (44)	44/50	17.2 (50)	99	50/50	16.5 (44)	95	44/50	16.3 (44)	94	44/50
94-7	16.9 (44)	44/50	17.3 (48)	102	48/50	17.2 (41)	102	41/50	16.4 (42)	97	42/50
98-7	16.9 (43)	43/50	17.0 (47)	101	47/50	17.0 (39)	101	39/50	16.2 (40)	96	40/50
102-7	16.6 (38)	38/50	16.6 (44)	100	44/50	17.1 (38)	103	38/50	16.0 (38)	96	38/50
104-7	16.6 (38)	38/50	16.5 (42)	99	42/50	17.1 (38)	103	38/50	15.8 (34)	95	34/50

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

TABLE E2

FOOD CONSUMPTION CHANGES AND SURVIVAL ANIMAL
NUMBERS : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

MEAN FOOD CONSUMPTION (FC) AND SURVIVAL

PAGE : 2

Week-Day on Study	Control		5 ppm		20 ppm		80 ppm				
	Average FC	No. of Surviv. <50>	Average FC	% of cont. <50>	No. of Surviv.	Average FC	% of cont. <50>	No. of Surviv.	Average FC	% of cont. <50>	No. of Surviv.
1-7	11.3 (50)	50/50	11.6 (50)	103	50/50	11.3 (50)	100	50/50	10.9 (50)	96	50/50
2-7	11.8 (50)	50/50	12.1 (50)	103	50/50	11.7 (50)	99	50/50	11.7 (50)	99	50/50
3-7	11.1 (50)	50/50	11.5 (50)	104	50/50	11.2 (50)	101	50/50	11.3 (50)	102	50/50
4-7	11.6 (50)	50/50	11.9 (50)	103	50/50	11.3 (50)	97	50/50	11.5 (50)	99	50/50
5-7	11.8 (50)	50/50	11.9 (50)	101	50/50	11.5 (50)	97	50/50	11.7 (50)	99	50/50
6-7	11.2 (50)	50/50	11.4 (50)	102	50/50	11.1 (50)	99	50/50	11.6 (50)	104	50/50
7-7	11.2 (50)	50/50	11.0 (50)	98	50/50	10.8 (50)	96	50/50	11.2 (50)	100	50/50
8-7	10.8 (50)	50/50	10.7 (50)	99	50/50	10.5 (50)	97	50/50	10.7 (50)	99	50/50
9-7	11.0 (50)	50/50	11.1 (50)	101	50/50	11.0 (50)	100	50/50	11.3 (50)	103	50/50
10-7	10.9 (50)	50/50	10.9 (50)	100	50/50	10.7 (50)	98	50/50	10.9 (50)	100	50/50
11-7	11.0 (50)	50/50	11.0 (50)	100	50/50	11.0 (50)	100	50/50	10.9 (50)	99	50/50
12-7	10.6 (50)	50/50	10.7 (50)	101	50/50	10.9 (50)	103	50/50	10.9 (50)	103	50/50
13-7	10.6 (50)	50/50	10.7 (50)	101	50/50	10.9 (50)	103	50/50	10.7 (50)	101	50/50
14-7	10.6 (50)	50/50	10.7 (50)	101	50/50	10.6 (50)	100	50/50	10.8 (50)	102	50/50
18-7	10.7 (50)	50/50	11.0 (50)	103	50/50	10.8 (50)	101	50/50	10.9 (50)	102	50/50
22-7	10.9 (50)	50/50	11.2 (50)	103	50/50	11.1 (50)	102	50/50	11.3 (50)	104	50/50
26-7	10.8 (50)	50/50	11.1 (50)	103	50/50	11.2 (50)	104	50/50	11.0 (50)	102	50/50
30-7	10.9 (50)	50/50	11.3 (50)	104	50/50	11.1 (50)	102	50/50	11.0 (50)	101	50/50
34-7	10.8 (50)	50/50	11.3 (50)	105	50/50	11.0 (50)	102	50/50	11.2 (50)	104	50/50
38-7	10.7 (50)	50/50	11.0 (50)	103	50/50	11.0 (50)	103	50/50	11.3 (50)	106	50/50
42-7	11.0 (50)	50/50	11.4 (50)	104	50/50	11.4 (50)	104	50/50	11.5 (50)	105	50/50
46-7	10.9 (50)	50/50	11.4 (50)	105	50/50	11.5 (50)	106	50/50	11.4 (50)	105	50/50
50-7	11.1 (50)	50/50	11.5 (50)	104	50/50	11.5 (50)	104	50/50	11.6 (50)	105	50/50
54-7	11.5 (50)	50/50	11.9 (49)	103	49/50	11.7 (50)	102	50/50	11.8 (50)	103	50/50
58-7	11.7 (50)	50/50	12.2 (49)	104	49/50	12.2 (50)	104	50/50	12.3 (50)	105	50/50
62-7	11.7 (50)	50/50	12.2 (49)	104	49/50	11.9 (50)	102	50/50	11.9 (50)	102	50/50
66-7	11.7 (50)	50/50	12.2 (49)	104	49/50	12.3 (49)	105	49/50	12.2 (50)	104	50/50
70-7	12.0 (50)	50/50	12.6 (48)	105	48/50	12.4 (48)	103	48/50	12.4 (50)	103	50/50
74-7	11.8 (50)	50/50	12.1 (48)	103	48/50	12.3 (48)	104	48/50	12.1 (50)	103	50/50
78-7	12.1 (49)	49/50	12.3 (46)	102	46/50	12.3 (47)	102	47/50	12.3 (50)	102	50/50
82-7	13.2 (47)	47/50	13.4 (44)	102	44/50	13.0 (46)	98	46/50	13.3 (49)	101	49/50
86-7	12.9 (47)	47/50	13.1 (43)	102	43/50	12.9 (46)	100	46/50	12.5 (49)	97	49/50
90-7	12.8 (47)	47/50	13.1 (42)	102	42/50	13.4 (46)	105	46/50	12.5 (48)	98	48/50
94-7	13.1 (46)	46/50	13.1 (41)	100	41/50	13.3 (44)	102	44/50	12.4 (46)	95	46/50
98-7	13.1 (43)	43/50	12.7 (41)	97	41/50	13.1 (44)	100	44/50	12.5 (43)	95	43/50
102-7	13.0 (41)	41/50	13.3 (37)	102	37/50	13.0 (41)	100	41/50	12.6 (41)	97	41/50
104-7	12.6 (41)	41/50	12.8 (37)	102	37/50	13.0 (38)	103	38/50	12.8 (38)	102	38/50
< >:No. of effective animals. ():No. of measured animals Average FC :g											

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

TABLE E3

FOOD CONSUMPTION CHANGES : MALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 1

Group Name	Administration week-day (effective)						
	1-7 (7)	2-7 (7)	3-7 (7)	4-7 (7)	5-7 (7)	6-7 (7)	7-7 (7)
Control	15.0 ± 1.0	16.9 ± 1.0	16.7 ± 1.1	17.4 ± 1.0	17.6 ± 0.9	17.5 ± 1.2	17.6 ± 1.2
5 ppm	15.4 ± 0.8*	17.3 ± 0.9*	17.0 ± 1.0	17.9 ± 0.8*	17.9 ± 0.8	17.2 ± 0.9	17.3 ± 0.9
20 ppm	15.0 ± 0.8	17.1 ± 0.9	16.7 ± 1.0	17.2 ± 1.0	17.3 ± 1.1	17.1 ± 1.1	17.2 ± 1.2
80 ppm	14.6 ± 0.7	16.5 ± 0.8	16.2 ± 0.7**	17.1 ± 0.8	17.3 ± 0.9	17.3 ± 0.8	17.5 ± 0.9

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 2

Group Name	Administration 8-7 (7)	week-day (effective) 9-7 (7)	10-7 (7)	11-7 (7)	12-7 (7)	13-7 (7)	14-7 (7)
Control	17.1 ± 1.0	17.3 ± 1.1	16.9 ± 1.0	16.8 ± 1.0	16.6 ± 1.1	16.6 ± 1.0	16.4 ± 1.0
5 ppm	17.0 ± 1.1	17.2 ± 1.0	16.8 ± 1.1	16.7 ± 1.1	16.4 ± 1.0	16.3 ± 1.0	16.3 ± 1.2
20 ppm	16.7 ± 1.2	17.2 ± 1.1	17.0 ± 1.2	16.9 ± 1.0	16.6 ± 0.9	16.6 ± 0.9	16.3 ± 1.0
80 ppm	17.1 ± 0.9	17.4 ± 1.1	17.0 ± 1.0	16.9 ± 1.1	16.8 ± 1.0	16.8 ± 0.9	16.6 ± 0.9

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 3

Group Name	Administration week-day (effective)						
	18-7 (7)	22-7 (7)	26-7 (7)	30-7 (7)	34-7 (7)	38-7 (7)	42-7 (7)
Control	16.4 ± 1.0	16.9 ± 1.0	17.1 ± 1.0	16.9 ± 1.0	16.9 ± 1.1	16.6 ± 1.1	17.0 ± 1.1
5 ppm	16.3 ± 1.1	16.8 ± 1.0	17.1 ± 1.1	16.5 ± 2.3	17.0 ± 1.1	16.7 ± 0.9	16.8 ± 1.1
20 ppm	16.1 ± 0.9	16.5 ± 1.0	17.0 ± 1.1	16.8 ± 1.1	16.9 ± 1.1	16.6 ± 1.2	16.7 ± 1.0
80 ppm	16.3 ± 1.0	16.7 ± 1.0	16.9 ± 0.9	16.7 ± 0.9	16.7 ± 0.8	16.4 ± 0.9	16.7 ± 0.9

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

Test of Dunnett

(HAN260)

BAIS4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 4

Group Name	Administration week-day (effective)						
	46-7 (7)	50-7 (7)	54-7 (7)	58-7 (7)	62-7 (7)	66-7 (7)	70-7 (7)
Control	17.0 ± 1.0	16.9 ± 1.0	17.1 ± 1.0	17.3 ± 0.9	17.3 ± 0.9	17.3 ± 0.8	17.3 ± 1.1
5 ppm	17.0 ± 1.1	16.9 ± 0.9	17.3 ± 1.2	17.3 ± 1.6	17.5 ± 1.0	17.5 ± 1.0	17.7 ± 1.1
20 ppm	16.8 ± 1.1	16.4 ± 1.7	16.8 ± 2.1	17.2 ± 1.0	17.4 ± 1.0	17.3 ± 1.2	17.6 ± 1.3
80 ppm	16.6 ± 0.9	16.8 ± 0.9	17.0 ± 1.0	17.1 ± 0.9	16.9 ± 0.9	17.2 ± 0.9	16.9 ± 0.9

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

Test of Dunnett

(HAN260)

BAIS4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 5

Group Name	Administration		week-day (effective)					
	74-7 (7)		78-7 (7)		82-7 (7)		86-7 (7)	
Control	17.2±	1.1	17.0±	2.5	17.2±	1.6	17.1±	1.6
							17.3±	1.6
5 ppm	17.2±	1.1	17.3±	1.1	17.6±	1.2	17.1±	1.5
							17.2±	1.6
20 ppm	17.3±	1.0	17.0±	1.8	17.6±	1.1	17.3±	1.4
							16.5±	3.2
80 ppm	16.9±	1.0	16.8±	1.1	17.0±	1.8	16.3±	1.1*
							16.3±	1.0**
							16.4±	1.9
							16.2±	1.7

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

Test of Dunnett

(HAN260)

BAIS4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
UNIT : g
REPORT TYPE : A1 104
SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 6

Group Name	Administration week-day (effective)	
	102-7 (7)	104-7 (7)
Control	16.6 ± 2.1	16.6 ± 2.2
5 ppm	16.6 ± 2.0	16.5 ± 2.1
20 ppm	17.1 ± 1.8	17.1 ± 2.3
80 ppm	16.0 ± 3.1	15.8 ± 3.5

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

Test of Dunnett

(HAN260)

BAIS 4

TABLE E4

FOOD CONSUMPTION CHANGES : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIcrlj [F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 7

Group Name	Administration week-day (effective) 1-7 (7)	2-7 (7)	3-7 (7)	4-7 (7)	5-7 (7)	6-7 (7)	7-7 (7)
Control	11.3 ± 0.6	11.8 ± 0.8	11.1 ± 0.9	11.6 ± 1.0	11.8 ± 1.1	11.2 ± 1.0	11.2 ± 1.1
5 ppm	11.6 ± 0.4**	12.1 ± 0.7	11.5 ± 0.6	11.9 ± 0.7	11.9 ± 0.9	11.4 ± 0.8	11.0 ± 0.8
20 ppm	11.3 ± 0.6	11.7 ± 0.7	11.2 ± 0.9	11.3 ± 0.8	11.5 ± 1.0	11.1 ± 1.0	10.8 ± 1.0
80 ppm	10.9 ± 0.5**	11.7 ± 0.6	11.3 ± 0.6	11.5 ± 0.8	11.7 ± 0.8	11.6 ± 0.9	11.2 ± 0.8

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

Test of Dunnett

(HAN260)

BAIS4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 8

Group Name	Administration 8-7 (7)	week-day (effective) 9-7 (7)	10-7 (7)	11-7 (7)	12-7 (7)	13-7 (7)	14-7 (7)
Control	10.8± 1.1	11.0± 1.0	10.9± 1.1	11.0± 0.8	10.6± 1.0	10.6± 1.0	10.6± 1.1
5 ppm	10.7± 0.9	11.1± 0.8	10.9± 0.9	11.0± 1.0	10.7± 0.9	10.7± 0.8	10.7± 0.9
20 ppm	10.5± 1.0	11.0± 1.0	10.7± 0.9	11.0± 1.0	10.9± 1.0	10.9± 1.0	10.6± 1.0
80 ppm	10.7± 0.8	11.3± 1.1	10.9± 1.0	10.9± 0.9	10.9± 0.8	10.7± 0.8	10.8± 1.0

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 9

Group Name	Administration 18-7 (7)	week-day (effective) 22-7 (7)	26-7 (7)	30-7 (7)	34-7 (7)	38-7 (7)	42-7 (7)
Control	10.7± 0.9	10.9± 0.9	10.8± 1.0	10.9± 0.9	10.8± 0.9	10.7± 0.9	11.0± 1.1
5 ppm	11.0± 0.9	11.2± 1.0	11.1± 0.7	11.3± 0.8	11.3± 0.8*	11.0± 0.9	11.4± 1.0*
20 ppm	10.8± 0.9	11.1± 1.0	11.2± 0.9	11.1± 0.9	11.0± 1.0	11.0± 0.9	11.4± 0.9
80 ppm	10.9± 0.8	11.3± 0.9	11.0± 0.7	11.0± 0.7	11.2± 0.8	11.3± 0.8**	11.5± 0.9**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 10

Group Name	Administration	week-day (effective)											
	46-7 (7)	50-7 (7)		54-7 (7)		58-7 (7)		62-7 (7)		66-7 (7)		70-7 (7)	
Control	10.9± 0.8	11.1± 1.1	11.5± 1.0	11.7± 1.0	11.7± 1.0	11.7± 1.0	11.7± 1.1	12.0± 1.2					
5 ppm	11.4± 0.9**	11.5± 1.0	11.9± 1.0	12.2± 1.2	12.2± 1.0*	12.2± 1.1	12.2± 1.1	12.6± 1.0**					
20 ppm	11.5± 0.8**	11.5± 0.9	11.7± 1.0	12.2± 1.1	11.9± 1.6	12.3± 1.2*	12.4± 1.0						
80 ppm	11.4± 0.6**	11.6± 0.9*	11.8± 1.0	12.3± 1.0*	11.9± 0.9	12.2± 1.0	12.4± 0.9						

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

Test of Dunnett

(HAN260)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 UNIT : g
 REPORT TYPE : A1 104
 SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
 ALL ANIMALS

PAGE : 11

Group Name	Administration week-day (effective)		82-7 (7)	86-7 (7)	90-7 (7)	94-7 (7)	98-7 (7)
	74-7 (7)	78-7 (7)					
Control	11.8± 1.5	12.1± 1.3	13.2± 1.1	12.9± 1.1	12.8± 1.5	13.1± 1.7	13.1± 1.2
5 ppm	12.1± 1.1	12.3± 1.5	13.4± 1.7	13.1± 1.0	13.1± 1.3	13.1± 1.3	12.7± 2.3
20 ppm	12.3± 1.2	12.3± 0.9	13.0± 1.1	12.9± 1.2	13.4± 1.6	13.3± 1.3	13.1± 1.7
80 ppm	12.1± 1.0	12.3± 1.5	13.3± 0.9	12.5± 1.0	12.5± 1.0	12.4± 1.7	12.5± 1.7*

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

Test of Dunnett

(HAN260)

BAIS4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
UNIT : g
REPORT TYPE : A1 104
SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

PAGE : 12

Group Name	Administration week-day (effective)	
	102-7 (7)	104-7 (7)
Control	13.0 ± 1.4	12.6 ± 1.6
5 ppm	13.3 ± 1.5	12.8 ± 1.3
20 ppm	13.0 ± 2.1	13.0 ± 1.4
80 ppm	12.6 ± 3.2	12.8 ± 3.1

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HAN260)

BAIS4

TABLE F1

HEMATOLOGY : MALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 MEASURE TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 1

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ⁹ /μl	
Control	37	7.61±	1.53	12.4±	2.7	37.6±	6.7	50.0±	5.7	16.3±	2.0	32.7±	2.2	1030±	379
5 ppm	41	8.00±	1.46	13.3±	2.7	39.7±	6.7	49.8±	2.0	16.5±	1.1	33.2±	1.8	960±	318
20 ppm	38	7.73±	1.64	12.5±	3.0	37.9±	7.6	49.4±	3.4	16.1±	1.4	32.7±	2.2	1026±	422
80 ppm	32	7.13±	1.49	11.7±	2.5	35.8±	6.5	50.7±	4.8	16.5±	1.8	32.5±	1.7	1051±	357

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
MEASURE TIME : 1
SEX : MALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 2

Group Name	NO. of Animals	RETICULOCYTE %	
Control	37	4.8±	4.4
5 ppm	41	4.0±	3.1
20 ppm	38	5.1±	4.9
80 ppm	32	6.2±	4.5

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 MEASURE TIME : 1
 SEX : MALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 3

Group Name	NO. of Animals	WBC 10 ⁹ /μl		Differential		WBC (%)		MONO		EOSINO		BASO		OTHER	
				NEUTRO		LYMPHO									
Control	37	7.70±	4.04	47±	11	45±	12	4±	1	1±	1	0±	0	3±	1
5 ppm	41	6.32±	1.78	48±	8	43±	8	4±	1	1±	1	0±	1	3±	2
20 ppm	38	6.57±	3.43	48±	9	43±	10	4±	1	1±	1	0±	0	3±	2
80 ppm	32	7.93±	7.24	47±	12	45±	12	4±	1	1±	1	0±	0	3±	1

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

TABLE F2

HEMATOLOGY : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 MEASURE TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 4

Group Name	NO. of Animals	RED BLOOD CELL 10 ⁶ /μl		HEMOGLOBIN g/dl		HEMATOCRIT %		MCV fl		MCH pg		MCHC g/dl		PLATELET 10 ³ /μl	
Control	41	7.71±	1.45	14.1±	2.4	40.1±	5.9	53.0±	6.7	18.3±	1.6	34.8±	2.2	656±	198
5 ppm	36	8.07±	0.66	14.6±	1.4	41.4±	3.8	51.2±	1.3	18.1±	0.8	35.3±	1.2	665±	140
20 ppm	38	7.78±	1.01	14.1±	1.6	40.1±	4.0	51.9±	3.1	18.2±	0.8	35.1±	1.1	618±	138
80 ppm	38	7.92±	0.63	14.4±	0.9	41.0±	2.3	52.0±	3.9	18.2±	1.0	35.2±	0.9	643±	114

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
MEASURE TIME : 1
SEX : FEMALE

HEMATOLOGY (SUMMARY)
ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 5

Group Name	NO. of Animals	RETICULOCYTE %	
Control	41	4.5±	7.9
5 ppm	36	2.3±	0.9
20 ppm	38	3.5±	4.0
80 ppm	38	2.8±	1.8

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 MEASURE TIME : 1
 SEX : FEMALE

HEMATOLOGY (SUMMARY)
 ALL ANIMALS (105W)

REPORT TYPE : A1

PAGE : 6

Group Name	NO. of Animals	WBC 10 ⁹ /μl		Differential		WBC (%)		MONO		EOSINO		BASO		OTHER	
				NEUTRO		LYMPHO									
Control	41	4.46±	4.95	41±	11	51±	12	4±	1	2±	3	0±	0	2±	1
5 ppm	36	4.00±	4.59	39±	10	54±	11	4±	1	2±	1	0±	0	2±	1
20 ppm	38	3.75±	2.33	38±	10	55±	10	4±	1	2±	1	0±	0	2±	1
80 ppm	38	4.97±	3.21	35±	11	57±	11	4±	2	2±	1	0±	0	3±	2**

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL070)

BAIS 4

TABLE G1

BIOCHEMISTRY : MALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 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	37	6.7±	0.5	2.7±	0.3	0.7±	0.1	0.14±	0.10	142±	20	180±	60	130±	86
5 ppm	41	6.9±	0.3	2.8±	0.3	0.7±	0.1	0.12±	0.02	145±	18	189±	55	130±	91
20 ppm	38	6.8±	0.3	2.8±	0.2	0.7±	0.1	0.12±	0.04	149±	17	183±	45	115±	71
80 ppm	32	6.7±	0.4	2.7±	0.2	0.7±	0.1	0.13±	0.09	145±	16	181±	67	134±	109

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [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	37	269±	95	95±	101	40±	33	134±	61	344±	123	6±	3	113±	38
5 ppm	41	275±	84	81±	21	36±	9	142±	59	322±	91	7±	4	109±	36
20 ppm	38	268±	58	93±	84	44±	44	117±	42	318±	79	6±	4	110±	41
80 ppm	32	271±	96	102±	112	38±	31	116±	42	345±	156	6±	4	108±	35

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [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	37	21.6±	7.4	0.6±	0.1	143±	1	3.8±	0.4	106±	2	10.7±	0.4	4.4±	0.8
5 ppm	41	21.1±	5.4	0.6±	0.1	143±	1	3.7±	0.3	106±	2	10.7±	0.4	4.1±	0.6
20 ppm	38	20.7±	4.4	0.6±	0.1	143±	2	3.6±	0.3*	106±	1	10.6±	0.4	4.1±	0.6
80 ppm	32	19.5±	5.1	0.6±	0.1	142±	1	3.7±	0.3	106±	2	10.6±	0.4	4.3±	0.6

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

TABLE G2

BIOCHEMISTRY : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIcrij [F344/DuCrj]
 MEASURE TIME : 1
 SEX : FEMALE REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)
 ALL ANIMALS (105W)

PAGE : 4

Group Name	NO. of Animals	TOTAL PROTEIN g/dl		ALBUMIN g/dl		A/G RATIO		T-BILIRUBIN mg/dl		GLUCOSE mg/dl		T-CHOLESTEROL mg/dl		TRIGLYCERIDE mg/dl	
Control	41	7.1±	0.5	3.5±	0.4	1.0±	0.1	0.14±	0.14	139±	22	151±	37	89±	53
5 ppm	36	7.1±	0.5	3.4±	0.4	1.0±	0.1	0.11±	0.02	138±	14	162±	58	91±	99
20 ppm	38	7.1±	0.5	3.4±	0.3	0.9±	0.1	0.13±	0.07	140±	17	157±	57	85±	108
80 ppm	38	6.9±	0.6	3.4±	0.3	1.0±	0.1	0.37±	1.47	138±	22	140±	22	87±	64

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

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [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	41	275±	65	125±	69	57±	23	152±	87	235±	136	3±	1	102±	38
5 ppm	36	286±	93	128±	78	57±	30	164±	71	193±	80	2±	1	108±	42
20 ppm	38	276±	101	138±	86	58±	39	146±	45	230±	104	3±	2	100±	29
80 ppm	38	251±	57	174±	164	68±	49	207±	220	265±	208	3±	2	125±	208

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of Dunnett

(HCL074)

BAIS 4

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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	41	17.9±	2.4	0.5±	0.1	141±	2	3.4±	0.3	103±	3	10.7±	0.4	4.0±	0.8
5 ppm	36	17.5±	2.6	0.6±	0.1	142±	1	3.4±	0.4	104±	2	10.8±	0.4	3.7±	0.7
20 ppm	38	18.7±	6.1	0.6±	0.1	142±	2	3.5±	0.4	104±	2	10.7±	0.5	3.9±	0.8
80 ppm	38	20.3±	12.1	0.5±	0.1	142±	2	3.6±	0.5	105±	2	10.6±	0.3	4.1±	1.5

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

Test of Dunnett

(HCL074)

BAIS 4

TABLE H1

URINALYSIS : MALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [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	38	0	0	3	6	8	19	2		0	0	1	1	16	20		38	0	0	0	0	0		25	12	1	0	0	0		37	1	0	0
5 ppm	42	0	0	6	6	16	11	3		0	0	0	1	20	21		42	0	0	0	0	0		35	7	0	0	0	0		42	0	0	0
20 ppm	38	0	0	7	5	8	18	0		0	0	0	0	18	20		38	0	0	0	0	0		27	11	0	0	0	0		37	1	0	0
80 ppm	35	0	2	3	10	11	9	0		0	0	0	1	11	23		35	0	0	0	0	0		28	7	0	0	0	0		33	2	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS4

STUDY NO. : 0731

ANIMAL : RAT F344/DuCrIj [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	38	37	0	0	0	0	1	38	0	0	0	0	0
5 ppm	42	40	2	0	0	0	0	42	0	0	0	0	0
20 ppm	38	34	2	0	2	0	0	38	0	0	0	0	0
80 ppm	35	31	1	1	1	1	1	35	0	0	0	0	0

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

Test of CHI SQUARE

(HCL101)

BAIS 4

TABLE H2

URINALYSIS : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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	1	1	7	11	8	13		0	4	4	4	25	4		41	0	0	0	0	0		35	3	3	0	0	0		41	0	0	0
5 ppm	37	0	0	5	7	5	9	11		0	3	4	3	18	9		37	0	0	0	0	0		28	6	2	1	0	0		34	2	1	0
20 ppm	39	0	0	6	1	13	9	10		0	0	2	11	19	7	*	39	0	0	0	0	0		28	7	4	0	0	0		37	1	1	0
80 ppm	38	0	2	2	2	11	9	12		0	1	5	8	22	2		38	0	0	0	0	0		26	8	3	1	0	0		36	1	0	1

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

Test of CHI SQUARE

(HCL101)

BAIS 4

STUDY NO. : 0731

ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]

MEASURE TIME : 1

SEX : FEMALE

REPORT TYPE : A1

URINALYSIS

PAGE : 4

Group Name	NO. of Animals	Occult blood					CHI	Urobilinogen					CHI
		—	±	+	2+	3+		±	+	2+	3+	4+	
Control	41	38	1	0	0	2		41	0	0	0	0	
5 ppm	37	33	0	1	2	1		37	0	0	0	0	
20 ppm	39	37	0	0	1	1		39	0	0	0	0	
80 ppm	38	36	0	1	0	1		37	0	0	1	0	

Significant difference ; * : $P \leq 0.05$

** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

BAIS 4

TABLE I 1

GROSS FINDINGS : MALE

ALL ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	20 ppm	80 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		1 (2)	3 (6)	4 (8)	1 (2)
	scab		0 (0)	1 (2)	0 (0)	0 (0)
subcutis	jaundice		1 (2)	1 (2)	0 (0)	2 (4)
	mass		10 (20)	5 (10)	10 (20)	10 (20)
nasal cavit	white zone		0 (0)	0 (0)	1 (2)	0 (0)
lung	white zone		1 (2)	2 (4)	5 (10)	3 (6)
	red zone		0 (0)	1 (2)	1 (2)	0 (0)
	nodule		1 (2)	2 (4)	3 (6)	2 (4)
lymph node	enlarged		1 (2)	1 (2)	0 (0)	1 (2)
spleen	enlarged		3 (6)	6 (12)	4 (8)	12 (24)
	white zone		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		1 (2)	2 (4)	0 (0)	0 (0)
heart	white zone		1 (2)	0 (0)	0 (0)	1 (2)
artery/aort	induration		0 (0)	0 (0)	1 (2)	0 (0)
oral cavity	nodule		0 (0)	0 (0)	1 (2)	0 (0)
stomach	gas		1 (2)	0 (0)	0 (0)	0 (0)
	forestomach:ulcer		3 (6)	2 (4)	0 (0)	1 (2)
	forestomach:erosion		1 (2)	0 (0)	1 (2)	1 (2)
	forestomach:nodule		1 (2)	0 (0)	0 (0)	0 (0)
	forestomach:red zone		1 (2)	0 (0)	0 (0)	0 (0)
	forestomach:thick		1 (2)	0 (0)	0 (0)	0 (0)
	forestomach:white zone		1 (2)	0 (0)	0 (0)	0 (0)

STUDY NO. : 0731
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		5 ppm		20 ppm		80 ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
stomach	glandular stomach:ulcer		1	(2)	0	(0)	0	(0)	1	(2)
	glandular stomach:erosion		1	(2)	2	(4)	2	(4)	1	(2)
	glandular stomach:thick		0	(0)	0	(0)	0	(0)	1	(2)
small intes	red zone		1	(2)	0	(0)	0	(0)	0	(0)
	gas		1	(2)	0	(0)	0	(0)	0	(0)
large intes	gas		1	(2)	0	(0)	0	(0)	0	(0)
liver	enlarged		1	(2)	1	(2)	0	(0)	3	(6)
	white zone		0	(0)	2	(4)	0	(0)	0	(0)
	nodule		1	(2)	2	(4)	1	(2)	1	(2)
	rough		1	(2)	0	(0)	0	(0)	3	(6)
	herniation		4	(8)	9	(18)	4	(8)	14	(28)
pancreas	nodule		0	(0)	0	(0)	0	(0)	1	(2)
kidney	enlarged		0	(0)	0	(0)	1	(2)	0	(0)
	yellow zone		0	(0)	1	(2)	0	(0)	0	(0)
	cyst		0	(0)	0	(0)	1	(2)	0	(0)
	granular		6	(12)	6	(12)	9	(18)	3	(6)
urin bladd	urine:marked retention		1	(2)	0	(0)	0	(0)	4	(8)
pituitary	enlarged		6	(12)	7	(14)	9	(18)	8	(16)
	red zone		4	(8)	7	(14)	5	(10)	7	(14)
	nodule		2	(4)	1	(2)	1	(2)	6	(12)
thyroid	enlarged		3	(6)	2	(4)	5	(10)	2	(4)
	red zone		0	(0)	1	(2)	0	(0)	0	(0)

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	20 ppm	80 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
thyroid	nodule		1 (2)	0 (0)	1 (2)	0 (0)
adrenal	enlarged		1 (2)	6 (12)	1 (2)	3 (6)
testis	nodule		35 (70)	42 (84)	32 (64)	27 (54)
prostate	nodule		1 (2)	0 (0)	0 (0)	0 (0)
brain	red zone		0 (0)	0 (0)	0 (0)	2 (4)
	yellow zone		0 (0)	1 (2)	0 (0)	0 (0)
	black zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	0 (0)	1 (2)
spinal cord	red zone		0 (0)	1 (2)	0 (0)	1 (2)
	nodule		0 (0)	0 (0)	0 (0)	1 (2)
eye	turbid		0 (0)	0 (0)	2 (4)	0 (0)
	white		5 (10)	4 (8)	3 (6)	2 (4)
Zymbal gl	nodule		0 (0)	1 (2)	1 (2)	0 (0)
muscle	nodule		0 (0)	0 (0)	0 (0)	1 (2)
pleura	nodule		1 (2)	0 (0)	0 (0)	0 (0)
mediastinum	mass		1 (2)	0 (0)	0 (0)	0 (0)
peritoneum	nodule		1 (2)	1 (2)	2 (4)	0 (0)
retroperit	mass		0 (0)	1 (2)	0 (0)	1 (2)
	cyst		0 (0)	0 (0)	1 (2)	0 (0)
abdominal c	ascites		0 (0)	2 (4)	3 (6)	0 (0)
thoracic ca	pleural fluid		1 (2)	2 (4)	2 (4)	3 (6)
other	lip:nodule		0 (0)	0 (0)	1 (2)	0 (0)

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		20 ppm		80 ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
other	ear:nodule		0	(0)	0	(0)	0	(0)	1	(2)
	hindlimb:nodule		0	(0)	0	(0)	0	(0)	1	(2)
	upper jaw:nodule		1	(2)	0	(0)	0	(0)	0	(0)
	nose:nodule		1	(2)	0	(0)	1	(2)	0	(0)
whole body	anemic		0	(0)	0	(0)	0	(0)	1	(2)

(HPT080)

BAIS 5

TABLE I 2

GROSS FINDINGS : MALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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	5 ppm	20 ppm	80 ppm
			12 (%)	8 (%)	12 (%)	16 (%)
skin/app	nodule		0 (0)	0 (0)	0 (0)	1 (6)
subcutis	jaundice		1 (8)	1 (13)	0 (0)	2 (13)
	mass		0 (0)	0 (0)	2 (17)	1 (6)
lung	white zone		0 (0)	0 (0)	1 (8)	1 (6)
	red zone		0 (0)	1 (13)	1 (8)	0 (0)
	nodule		0 (0)	0 (0)	0 (0)	1 (6)
lymph node	enlarged		1 (8)	1 (13)	0 (0)	1 (6)
spleen	enlarged		2 (17)	5 (63)	2 (17)	9 (56)
	white zone		0 (0)	1 (13)	0 (0)	0 (0)
	nodule		1 (8)	2 (25)	0 (0)	0 (0)
artery/aort	induration		0 (0)	0 (0)	1 (8)	0 (0)
stomach	gas		1 (8)	0 (0)	0 (0)	0 (0)
	forestomach:ulcer		3 (25)	2 (25)	0 (0)	1 (6)
	forestomach:erosion		1 (8)	0 (0)	1 (8)	1 (6)
	forestomach:red zone		1 (8)	0 (0)	0 (0)	0 (0)
	forestomach:white zone		1 (8)	0 (0)	0 (0)	0 (0)
	glandular stomach:ulcer		1 (8)	0 (0)	0 (0)	0 (0)
	glandular stomach:erosion		1 (8)	2 (25)	1 (8)	1 (6)
small intes	red zone		1 (8)	0 (0)	0 (0)	0 (0)
	gas		1 (8)	0 (0)	0 (0)	0 (0)
large intes	gas		1 (8)	0 (0)	0 (0)	0 (0)
liver	enlarged		1 (8)	1 (13)	0 (0)	3 (19)

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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	5 ppm	20 ppm	80 ppm
			12 (%)	8 (%)	12 (%)	16 (%)
liver	white zone		0 (0)	1 (13)	0 (0)	0 (0)
	nodule		0 (0)	1 (13)	0 (0)	0 (0)
	rough		0 (0)	0 (0)	0 (0)	1 (6)
	herniation		0 (0)	3 (38)	2 (17)	7 (44)
pancreas	nodule		0 (0)	0 (0)	0 (0)	1 (6)
kidney	enlarged		0 (0)	0 (0)	1 (8)	0 (0)
	yellow zone		0 (0)	1 (13)	0 (0)	0 (0)
	granular		1 (8)	1 (13)	4 (33)	0 (0)
urin bladd	urine:marked retention		1 (8)	0 (0)	0 (0)	3 (19)
pituitary	enlarged		3 (25)	3 (38)	4 (33)	3 (19)
	red zone		0 (0)	1 (13)	0 (0)	0 (0)
	nodule		1 (8)	0 (0)	0 (0)	2 (13)
thyroid	enlarged		0 (0)	0 (0)	0 (0)	1 (6)
	nodule		1 (8)	0 (0)	1 (8)	0 (0)
adrenal	enlarged		0 (0)	3 (38)	1 (8)	2 (13)
testis	nodule		3 (25)	6 (75)	2 (17)	5 (31)
prostate	nodule		1 (8)	0 (0)	0 (0)	0 (0)
brain	red zone		0 (0)	0 (0)	0 (0)	2 (13)
	yellow zone		0 (0)	1 (13)	0 (0)	0 (0)
	black zone		1 (8)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	0 (0)	1 (6)
spinal cord	red zone		0 (0)	1 (13)	0 (0)	1 (6)

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [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	5 ppm	20 ppm	80 ppm
			12 (%)	8 (%)	12 (%)	16 (%)
spinal cord	nodule		0 (0)	0 (0)	0 (0)	1 (6)
eye	turbid		0 (0)	0 (0)	1 (8)	0 (0)
	white		1 (8)	0 (0)	0 (0)	0 (0)
Zymbal gl	nodule		0 (0)	0 (0)	1 (8)	0 (0)
muscle	nodule		0 (0)	0 (0)	0 (0)	1 (6)
peritoneum	nodule		1 (8)	0 (0)	1 (8)	0 (0)
abdominal c	ascites		0 (0)	2 (25)	2 (17)	0 (0)
thoracic ca	pleural fluid		0 (0)	1 (13)	2 (17)	3 (19)
other	upper jaw:nodule		1 (8)	0 (0)	0 (0)	0 (0)
	nose:nodule		0 (0)	0 (0)	1 (8)	0 (0)
whole body	anemic		0 (0)	0 (0)	0 (0)	1 (6)

TABLE I 3

GROSS FINDINGS : MALE
SACRIFICED ANIMALS

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY)
SACRIFICED ANIMALS (105W)

PAGE : 1

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		20 ppm		80 ppm	
			38	(%)	42	(%)	38	(%)	34	(%)
skin/app	nodule		1	(3)	3	(7)	4	(11)	0	(0)
	scab		0	(0)	1	(2)	0	(0)	0	(0)
subcutis	mass		10	(26)	5	(12)	8	(21)	9	(26)
nasal cavit	white zone		0	(0)	0	(0)	1	(3)	0	(0)
lung	white zone		1	(3)	2	(5)	4	(11)	2	(6)
	nodule		1	(3)	2	(5)	3	(8)	1	(3)
spleen	enlarged		1	(3)	1	(2)	2	(5)	3	(9)
heart	white zone		1	(3)	0	(0)	0	(0)	1	(3)
oral cavity	nodule		0	(0)	0	(0)	1	(3)	0	(0)
stomach	forestomach:nodule		1	(3)	0	(0)	0	(0)	0	(0)
	forestomach:thick		1	(3)	0	(0)	0	(0)	0	(0)
	glandular stomach:ulcer		0	(0)	0	(0)	0	(0)	1	(3)
	glandular stomach:erosion		0	(0)	0	(0)	1	(3)	0	(0)
	glandular stomach:thick		0	(0)	0	(0)	0	(0)	1	(3)
liver	white zone		0	(0)	1	(2)	0	(0)	0	(0)
	nodule		1	(3)	1	(2)	1	(3)	1	(3)
	rough		1	(3)	0	(0)	0	(0)	2	(6)
	herniation		4	(11)	6	(14)	2	(5)	7	(21)
kidney	cyst		0	(0)	0	(0)	1	(3)	0	(0)
	granular		5	(13)	5	(12)	5	(13)	3	(9)
urin bladd	urine:marked retention		0	(0)	0	(0)	0	(0)	1	(3)
pituitary	enlarged		3	(8)	4	(10)	5	(13)	5	(15)

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 2

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		20 ppm		80 ppm	
			38	(%)	42	(%)	38	(%)	34	(%)
pituitary	red zone		4	(11)	6	(14)	5	(13)	7	(21)
	nodule		1	(3)	1	(2)	1	(3)	4	(12)
thyroid	enlarged		3	(8)	2	(5)	5	(13)	1	(3)
	red zone		0	(0)	1	(2)	0	(0)	0	(0)
adrenal	enlarged		1	(3)	3	(7)	0	(0)	1	(3)
testis	nodule		32	(84)	36	(86)	30	(79)	22	(65)
eye	turbid		0	(0)	0	(0)	1	(3)	0	(0)
	white		4	(11)	4	(10)	3	(8)	2	(6)
Zymbal gl	nodule		0	(0)	1	(2)	0	(0)	0	(0)
pleura	nodule		1	(3)	0	(0)	0	(0)	0	(0)
mediastinum	mass		1	(3)	0	(0)	0	(0)	0	(0)
peritoneum	nodule		0	(0)	1	(2)	1	(3)	0	(0)
retroperit	mass		0	(0)	1	(2)	0	(0)	1	(3)
	cyst		0	(0)	0	(0)	1	(3)	0	(0)
abdominal c	ascites		0	(0)	0	(0)	1	(3)	0	(0)
thoracic ca	pleural fluid		1	(3)	1	(2)	0	(0)	0	(0)
other	lip:nodule		0	(0)	0	(0)	1	(3)	0	(0)
	ear:nodule		0	(0)	0	(0)	0	(0)	1	(3)
	hindlimb:nodule		0	(0)	0	(0)	0	(0)	1	(3)
	nose:nodule		1	(3)	0	(0)	0	(0)	0	(0)

TABLE I 4

GROSS FINDINGS : FEMALE
ALL ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	20 ppm	80 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
skin/app	nodule		1 (2)	1 (2)	0 (0)	2 (4)
	scab		1 (2)	0 (0)	0 (0)	1 (2)
subcutis	jaundice		0 (0)	3 (6)	1 (2)	1 (2)
	mass		6 (12)	5 (10)	6 (12)	15 (30)
lung	red		0 (0)	1 (2)	0 (0)	0 (0)
	nodule		1 (2)	2 (4)	1 (2)	0 (0)
lymph node	enlarged		2 (4)	0 (0)	0 (0)	0 (0)
thymus	enlarged		0 (0)	0 (0)	1 (2)	0 (0)
spleen	enlarged		5 (10)	5 (10)	5 (10)	3 (6)
	nodule		0 (0)	0 (0)	2 (4)	0 (0)
	adhesion		1 (2)	0 (0)	0 (0)	0 (0)
tongue	white zone		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		0 (0)	1 (2)	0 (0)	0 (0)
stomach	forestomach:ulcer		0 (0)	2 (4)	1 (2)	0 (0)
	forestomach:thick		2 (4)	0 (0)	0 (0)	0 (0)
small intes	adhesion		1 (2)	0 (0)	0 (0)	0 (0)
large intes	nodule		0 (0)	1 (2)	0 (0)	0 (0)
liver	enlarged		1 (2)	0 (0)	0 (0)	1 (2)
	white zone		0 (0)	0 (0)	0 (0)	1 (2)
	nodule		1 (2)	0 (0)	1 (2)	0 (0)
	deformed		0 (0)	0 (0)	1 (2)	0 (0)
	rough		3 (6)	0 (0)	1 (2)	1 (2)

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

Organ	Findings	Group Name NO. of Animals	Control	5 ppm	20 ppm	80 ppm
			50 (%)	50 (%)	50 (%)	50 (%)
liver	adhesion		0 (0)	1 (2)	0 (0)	0 (0)
	herniation		10 (20)	12 (24)	10 (20)	6 (12)
pancreas	nodule		0 (0)	1 (2)	0 (0)	0 (0)
kidney	white zone		0 (0)	2 (4)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (2)	1 (2)
	granular		0 (0)	1 (2)	2 (4)	0 (0)
pituitary	enlarged		12 (24)	9 (18)	13 (26)	8 (16)
	red zone		10 (20)	12 (24)	6 (12)	12 (24)
	nodule		1 (2)	4 (8)	2 (4)	3 (6)
	cyst		0 (0)	0 (0)	1 (2)	0 (0)
thyroid	enlarged		1 (2)	3 (6)	1 (2)	0 (0)
adrenal	enlarged		3 (6)	0 (0)	1 (2)	1 (2)
ovary	cyst		3 (6)	3 (6)	1 (2)	3 (6)
uterus	nodule		9 (18)	2 (4)	3 (6)	8 (16)
prep/cli gl	nodule		1 (2)	0 (0)	0 (0)	1 (2)
brain	red zone		0 (0)	1 (2)	0 (0)	0 (0)
	hemorrhage		0 (0)	0 (0)	1 (2)	0 (0)
	nodule		0 (0)	1 (2)	0 (0)	0 (0)
	deformed		0 (0)	0 (0)	1 (2)	0 (0)
spinal cord	red zone		0 (0)	0 (0)	1 (2)	0 (0)
eye	white		6 (12)	3 (6)	6 (12)	5 (10)
	red		0 (0)	0 (0)	0 (0)	1 (2)

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 7

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		20 ppm		80 ppm	
			50	(%)	50	(%)	50	(%)	50	(%)
Harder gl	enlarged		1	(2)	0	(0)	0	(0)	0	(0)
peritoneum	nodule		0	(0)	3	(6)	0	(0)	0	(0)
	adhesion		0	(0)	0	(0)	1	(2)	0	(0)
retroperit	mass		1	(2)	0	(0)	0	(0)	1	(2)
abdominal c	ascites		0	(0)	1	(2)	2	(4)	1	(2)
thoracic ca	pleural fluid		2	(4)	3	(6)	2	(4)	1	(2)
other	nodule		0	(0)	1	(2)	0	(0)	0	(0)
	ear:nodule		1	(2)	1	(2)	0	(0)	0	(0)
	upper jaw:nodule		1	(2)	0	(0)	0	(0)	0	(0)
whole body	anemic		0	(0)	0	(0)	0	(0)	1	(2)

(HPT080)

BAIS 5

TABLE I 5

GROSS FINDINGS : FEMALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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	5 ppm	20 ppm	80 ppm
			9 (%)	13 (%)	12 (%)	12 (%)
subcutis	jaundice		0 (0)	3 (23)	1 (8)	0 (0)
	mass		1 (11)	0 (0)	2 (17)	2 (17)
lung	red		0 (0)	1 (8)	0 (0)	0 (0)
	nodule		1 (11)	0 (0)	0 (0)	0 (0)
lymph node	enlarged		1 (11)	0 (0)	0 (0)	0 (0)
thymus	enlarged		0 (0)	0 (0)	1 (8)	0 (0)
spleen	enlarged		2 (22)	4 (31)	2 (17)	2 (17)
	nodule		0 (0)	0 (0)	2 (17)	0 (0)
stomach	forestomach:ulcer		0 (0)	2 (15)	1 (8)	0 (0)
liver	enlarged		1 (11)	0 (0)	0 (0)	1 (8)
	nodule		1 (11)	0 (0)	1 (8)	0 (0)
	rough		1 (11)	0 (0)	0 (0)	0 (0)
	herniation		2 (22)	2 (15)	1 (8)	1 (8)
pancreas	nodule		0 (0)	1 (8)	0 (0)	0 (0)
kidney	white zone		0 (0)	1 (8)	0 (0)	0 (0)
	nodule		0 (0)	0 (0)	1 (8)	0 (0)
pituitary	enlarged		2 (22)	4 (31)	4 (33)	7 (58)
	red zone		2 (22)	4 (31)	1 (8)	1 (8)
	nodule		0 (0)	1 (8)	0 (0)	1 (8)
adrenal	enlarged		1 (11)	0 (0)	1 (8)	1 (8)
ovary	cyst		1 (11)	1 (8)	0 (0)	0 (0)
uterus	nodule		1 (11)	1 (8)	1 (8)	3 (25)

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Organ	Findings	Group Name NO. of Animals	Control				5 ppm				20 ppm				80 ppm			
			9	(%)	13	(%)	12	(%)	12	(%)	12	(%)	12	(%)	12	(%)	12	(%)
prep/cli gl	nodule		0	(0)	0	(0)	0	(0)	0	(0)	1	(8)						
brain	red zone		0	(0)	1	(8)	0	(0)	0	(0)	0	(0)						
	hemorrhage		0	(0)	0	(0)	1	(8)	0	(0)	0	(0)						
	deformed		0	(0)	0	(0)	1	(8)	0	(0)	0	(0)						
spinal cord	red zone		0	(0)	0	(0)	1	(8)	0	(0)	0	(0)						
eye	white		3	(33)	0	(0)	2	(17)	0	(0)	0	(0)						
	red		0	(0)	0	(0)	0	(0)	1	(8)								
Harder gl	enlarged		1	(11)	0	(0)	0	(0)	0	(0)	0	(0)						
peritoneum	nodule		0	(0)	2	(15)	0	(0)	0	(0)	0	(0)						
	adhesion		0	(0)	0	(0)	1	(8)	0	(0)	0	(0)						
retroperit	mass		1	(11)	0	(0)	0	(0)	0	(0)	0	(0)						
abdominal c	ascites		0	(0)	0	(0)	1	(8)	1	(8)								
thoracic ca	pleural fluid		2	(22)	2	(15)	2	(17)	1	(8)								
other	nodule		0	(0)	1	(8)	0	(0)	0	(0)	0	(0)						
	ear:nodule		1	(11)	0	(0)	0	(0)	0	(0)	0	(0)						
	upper jaw:nodule		1	(11)	0	(0)	0	(0)	0	(0)	0	(0)						
whole body	anemic		0	(0)	0	(0)	0	(0)	1	(8)								

TABLE I 6

GROSS FINDINGS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 3

Organ	Findings	Group Name NO. of Animals	Control		5 ppm		20 ppm		80 ppm	
			41	(%)	37	(%)	38	(%)	38	(%)
skin/app	nodule		1	(2)	1	(3)	0	(0)	2	(5)
	scab		1	(2)	0	(0)	0	(0)	1	(3)
subcutis	jaundice		0	(0)	0	(0)	0	(0)	1	(3)
	mass		5	(12)	5	(14)	4	(11)	13	(34)
lung	nodule		0	(0)	2	(5)	1	(3)	0	(0)
lymph node	enlarged		1	(2)	0	(0)	0	(0)	0	(0)
spleen	enlarged		3	(7)	1	(3)	3	(8)	1	(3)
	adhesion		1	(2)	0	(0)	0	(0)	0	(0)
tongue	white zone		0	(0)	0	(0)	1	(3)	0	(0)
	nodule		0	(0)	1	(3)	0	(0)	0	(0)
stomach	forestomach:thick		2	(5)	0	(0)	0	(0)	0	(0)
small intes	adhesion		1	(2)	0	(0)	0	(0)	0	(0)
large intes	nodule		0	(0)	1	(3)	0	(0)	0	(0)
liver	white zone		0	(0)	0	(0)	0	(0)	1	(3)
	deformed		0	(0)	0	(0)	1	(3)	0	(0)
	rough		2	(5)	0	(0)	1	(3)	1	(3)
	adhesion		0	(0)	1	(3)	0	(0)	0	(0)
	herniation		8	(20)	10	(27)	9	(24)	5	(13)
kidney	white zone		0	(0)	1	(3)	0	(0)	0	(0)
	nodule		0	(0)	0	(0)	0	(0)	1	(3)
	granular		0	(0)	1	(3)	2	(5)	0	(0)
pituitary	enlarged		10	(24)	5	(14)	9	(24)	1	(3)

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

GROSS FINDINGS (SUMMARY)
 SACRIFICED ANIMALS (105W)

PAGE : 4

Organ	Findings	Group Name NO. of Animals	Control				5 ppm				20 ppm				80 ppm			
			41	(%)	37	(%)	38	(%)	38	(%)	38	(%)	38	(%)	38	(%)	38	(%)
pituitary	red zone		8	(20)	8	(22)	5	(13)	11	(29)								
	nodule		1	(2)	3	(8)	2	(5)	2	(5)								
	cyst		0	(0)	0	(0)	1	(3)	0	(0)								
thyroid	enlarged		1	(2)	3	(8)	1	(3)	0	(0)								
adrenal	enlarged		2	(5)	0	(0)	0	(0)	0	(0)								
ovary	cyst		2	(5)	2	(5)	1	(3)	3	(8)								
uterus	nodule		8	(20)	1	(3)	2	(5)	5	(13)								
prep/cli gl	nodule		1	(2)	0	(0)	0	(0)	0	(0)								
brain	nodule		0	(0)	1	(3)	0	(0)	0	(0)								
eye	white		3	(7)	3	(8)	4	(11)	5	(13)								
peritoneum	nodule		0	(0)	1	(3)	0	(0)	0	(0)								
retroperit	mass		0	(0)	0	(0)	0	(0)	1	(3)								
abdominal c	ascites		0	(0)	1	(3)	1	(3)	0	(0)								
thoracic ca	pleural fluid		0	(0)	1	(3)	0	(0)	0	(0)								
other	ear:nodule		0	(0)	1	(3)	0	(0)	0	(0)								

TABLE J1

ORGAN WEIGHT, ABSOLUTE : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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	37	382±	37	0.100±	0.039	3.462±	1.722	1.289±	0.176	1.530±	0.440	2.815±	0.366
5 ppm	41	389±	31	0.101±	0.036	3.519±	1.833	1.298±	0.137	1.447±	0.123	2.801±	0.296
20 ppm	38	389±	41	0.098±	0.018	3.437±	1.404	1.300±	0.151	1.473±	0.199	2.823±	0.450
80 ppm	32	395±	43	0.100±	0.048	3.118±	1.373	1.285±	0.118	1.482±	0.183	2.692±	0.222

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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	37	1.356±	1.486	11.473±	1.869	2.091±	0.044
5 ppm	41	1.054±	0.414	11.353±	1.586	2.096±	0.062
20 ppm	38	1.076±	0.496	11.077±	1.413	2.093±	0.062
80 ppm	32	1.210±	0.737	11.359±	1.970	2.079±	0.052

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

(HCL040)

BAIS 4

TABLE J2

ORGAN WEIGHT, ABSOLUTE : FEMALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
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	41	259± 31	0.096± 0.040	0.139± 0.076	0.917± 0.093	1.036± 0.272	1.788± 0.117
5 ppm	36	265± 29	0.088± 0.009	0.151± 0.115	0.907± 0.090	0.986± 0.079	1.853± 0.138
20 ppm	37	265± 20	0.087± 0.012	0.127± 0.021	0.904± 0.078	1.013± 0.149	1.849± 0.203
80 ppm	38	275± 52	0.088± 0.014	0.247± 0.458	0.900± 0.087	1.026± 0.188	1.802± 0.134

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

Test of Dunnett

(HCL040)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
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	41	0.840±	1.110	6.727±	0.902	1.895±	0.045
5 ppm	36	0.577±	0.191	6.886±	0.970	1.910±	0.096
20 ppm	37	0.835±	0.970	7.240±	1.545	1.896±	0.040
80 ppm	38	0.939±	1.546*	7.147±	1.245	1.895±	0.042

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

Test of Dunnett

(HCL040)

BAIS 4

TABLE K1

ORGAN WEIGHT, RELATIVE : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
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	37	382± 37	0.027± 0.013	0.898± 0.425	0.341± 0.064	0.408± 0.151	0.748± 0.154
5 ppm	41	389± 31	0.026± 0.012	0.907± 0.480	0.335± 0.043	0.374± 0.040	0.725± 0.109
20 ppm	38	389± 41	0.026± 0.006	0.890± 0.382	0.338± 0.047	0.383± 0.060	0.737± 0.155
80 ppm	32	395± 43	0.025± 0.012	0.804± 0.373	0.328± 0.042	0.378± 0.054	0.686± 0.075

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrI]
REPORT TYPE : A1
SEX : MALE
UNIT: %

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

PAGE : 2

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	37	0.371 ± 0.467	3.041 ± 0.665	0.553 ± 0.051
5 ppm	41	0.271 ± 0.104	2.930 ± 0.433	0.542 ± 0.041
20 ppm	38	0.276 ± 0.126	2.857 ± 0.267	0.546 ± 0.071
80 ppm	32	0.305 ± 0.176	2.875 ± 0.391	0.531 ± 0.049

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

Test of Dunnett

(HCL042)

BAIS 4

TABLE K2

ORGAN WEIGHT, RELATIVE : FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 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	41	259± 31	0.038± 0.018	0.054± 0.034	0.360± 0.067	0.407± 0.119	0.699± 0.081
5 ppm	36	265± 29	0.034± 0.006	0.058± 0.049	0.345± 0.042	0.377± 0.052	0.706± 0.087
20 ppm	37	265± 20	0.033± 0.005	0.048± 0.008	0.343± 0.034	0.385± 0.069	0.701± 0.079
80 ppm	38	275± 52	0.033± 0.005	0.096± 0.185	0.334± 0.050	0.384± 0.105	0.668± 0.084

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

Test of Dunnett

(HCL042)

BAIS 4

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
REPORT TYPE : A1
SEX : FEMALE
UNIT: %

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

PAGE : 4

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN
Control	41	0.332± 0.448	2.625± 0.396	0.744± 0.103
5 ppm	36	0.220± 0.080	2.607± 0.302	0.729± 0.092
20 ppm	37	0.319± 0.373	2.741± 0.571	0.721± 0.061
80 ppm	38	0.371± 0.705	2.639± 0.517	0.706± 0.092

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

Test of Dunnett

(HCL042)

BAIS4

TABLE L1

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
ALL ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade				50				50				50				50			
		1+	2+	3+	4+	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	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)
	inflammation	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	basal cell hyperplasia	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	epidermal cyst	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	sebaceous hyperplasia	0	0	0	0	0	1	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)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
subcutis		<50>				<50>				<50>				<50>				<50>			
	inflammation	0	0	0	0	0	0	0	0	0	1	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)	(2)	(0)	(0)
(Respiratory system)																					
nasal cavit		<50>				<50>				<50>				<50>				<50>			
	thrombus	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0
		(0)	(4)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(6)	(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

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

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm				
		No. of Animals on Study	50				50				50				50				
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Respiratory system)																			
nasal cavit			<50>				<50>				<50>				<50>				
	lymphocytic infiltration	1	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	27	8	0	0	0	32	7	0	0	0	24	13	1	0	0	29	11	0
		(54)	(16)	(0)	(0)	(0)	(64)	(14)	(0)	(0)	(0)	(48)	(26)	(2)	(0)	(0)	(58)	(22)	(0)
	eosinophilic change:respiratory epithelium	7	0	0	0	0	9	0	0	0	0	9	0	0	0	0	9	0	0
		(14)	(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(0)	(18)	(0)	(0)
	inflammation:foreign body	17	1	0	0	0	9	4	0	0	0	19	2	0	0	0	6	2	0
		(34)	(2)	(0)	(0)	(0)	(18)	(8)	(0)	(0)	(0)	(38)	(4)	(0)	(0)	(0)	(12)	(4)	(0)
	inflammation:respiratory epithelium	9	0	0	0	0	12	0	0	0	0	9	1	0	0	0	18	6	0
		(18)	(0)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(0)	(18)	(2)	(0)	(0)	(0)	(36)	(12)	(0)
	respiratory metaplasia:olfactory epithelium	5	0	0	0	0	1	0	0	0	0	4	0	0	0	0	2	0	0
		(10)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(4)	(0)	(0)
	respiratory metaplasia:gland	5	0	0	0	0	3	0	0	0	0	2	0	0	0	0	5	0	0
		(10)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(10)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	6	0	0	0	0	8	0	0	0	0	9	0	0	0	0	17	3	0
		(12)	(0)	(0)	(0)	(0)	(16)	(0)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(0)	(34)	(6)	(0)

(HPT150)

BAIS5

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ_____	Findings_____	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
(Respiratory system)																		
nasal cavit			<50>				<50>				<50>				<50>			
	ulcer:respiratory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(2)	(0)	(0)
	hyperplasia:transitional epithelium		2	0	0	0	2	0	0	0	1	0	0	0	9	0	0	0
			(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
	erosion:transitional epithelium		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)
	atrophy:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
larynx			<50>				<50>				<50>				<50>			
	inflammation		1	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0
			(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
lung			<50>				<50>				<50>				<50>			
	congestion		2	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0
			(4)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(0)	(2)	(0)	(0)
	edema		0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			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)	2 (4)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplasia		2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
(Hematopoietic system)																		
bone marrow			<50>				<50>				<50>				<50>			
	congestion		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)
	granulation		2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
	increased hematopoiesis		2 (4)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
lymph node			<50>				<50>				<50>				<50>			
	lymphadenitis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ	Findings	Control				5 ppm				20 ppm				80 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+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																	
spleen		<50>				<50>				<50>				<50>			
	atrophy	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	congestion	13	0	0	0	10	0	0	0	10	0	0	0	8	0	0	0
		(26)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(20)	(0)	(0)	(0)	(16)	(0)	(0)	(0)
	fatty change	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)
	deposit of hemosiderin	11	0	0	0	18	0	0	0	10	1	0	0	9	1	0	0
		(22)	(0)	(0)	(0)	(36)	(0)	(0)	(0)	(20)	(2)	(0)	(0)	(18)	(2)	(0)	(0)
	fibrosis	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(2)	(0)	(0)
	extramedullary hematopoiesis	9	2	0	0	10	0	0	0	7	4	0	0	10	3	0	0
		(18)	(4)	(0)	(0)	(20)	(0)	(0)	(0)	(14)	(8)	(0)	(0)	(20)	(6)	(0)	(0)
(Circulatory system)																	
heart		<50>				<50>				<50>				<50>			
	thrombus	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 6

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Circulatory system)																		
heart	mineralization		<50>				<50>				<50>				<50>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)
	myocardial fibrosis		26 (52)	2 (4)	0 (0)	0 (0)	25 (50)	4 (8)	1 (2)	0 (0)	25 (50)	3 (6)	1 (2)	0 (0)	26 (52)	5 (10)	1 (2)	0 (0)
		subendocardial fibrosis		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)
arteritis			1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	artery/aort	mineralization		<50>				<50>				<50>				<50>		
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)
(Digestive system)																		
oral cavity	dysplasia		<50>				<50>				<50>				<50>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 7

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			50				50				50				50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
oral cavity	squamous cell hyperplasia		<50>				<50>				<50>				<50>			
		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
tooth	dysplasia		<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)	
tongue	mineralization		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	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)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
		arteritis		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)
stomach	erosion:forestomach		<50>				<50>				<50>				<50>			
		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)	
	ulcer:forestomach		1 (2)	4 (8)	0 (0)	0 (0)	1 (2)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI Crlj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				5 ppm 50				20 ppm 50				80 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
stomach	inflammation:forestomach		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)
	erosion:glandular stomach		1 (2)	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)
	ulcer:glandular stomach		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:glandular stomach		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)
	mineralization:glandular stomach		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)	1 (2)	0 (0)
	squamous cell hyperplasia:forestomach		1 (2)	2 (4)	1 (2)	0 (0)	6 (12)	1 (2)	0 (0)	0 (0)	6 (12)	1 (2)	0 (0)	0 (0)	4 (8)	1 (2)	0 (0)	0 (0)
small intes	mineralization		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	
	inflammation		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
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. : 0731
 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				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	Grade	50				50				50				50			
				1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																			
liver	herniation			<50>				<50>				<50>				<50>			
				4	0	0	0	9	0	0	0	4	0	0	0	14	0	0	0 *
				(8)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(28)	(0)	(0)	(0)
	necrosis:central			2	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0
				(4)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	necrosis:focal			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)
	fatty change			1	1	0	0	1	1	0	0	0	0	0	0	1	1	0	0
				(2)	(2)	(0)	(0)	(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
fatty change:peripheral			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			7	0	0	0	4	2	0	0	8	0	0	0	8	1	0	0	
			(14)	(0)	(0)	(0)	(8)	(4)	(0)	(0)	(16)	(0)	(0)	(0)	(16)	(2)	(0)	(0)	
clear cell focus			2	1	0	0	1	1	0	0	3	0	0	0	4	0	0	0	
			(4)	(2)	(0)	(0)	(2)	(2)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	
acidophilic cell focus			4	4	0	0	8	3	0	0	4	1	0	0	3	1	0	0	
			(8)	(8)	(0)	(0)	(16)	(6)	(0)	(0)	(8)	(2)	(0)	(0)	(6)	(2)	(0)	(0)	

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 10

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver			<50>				<50>				<50>				<50>			
	basophilic cell focus		4 (8)	1 (2)	0 (0)	0 (0)	3 (6)	4 (8)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	2 (4)	3 (6)	0 (0)	0 (0)
	mixed cell focus		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)
	spongiosis hepatis		2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		5 (10)	44 (88)	0 (0)	0 (0)	2 (4)	47 (94)	0 (0)	0 (0)	8 (16)	40 (80)	0 (0)	0 (0)	4 (8)	42 (84)	0 (0)	0 (0)
	biliary cyst		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)
	focal fatty change		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
pancreas			<50>				<50>				<50>				<50>			
	atrophy		28 (56)	5 (10)	0 (0)	0 (0)	26 (52)	0 (0)	1 (2)	0 (0)	28 (56)	4 (8)	0 (0)	0 (0)	24 (48)	4 (8)	2 (4)	0 (0)
	arteritis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 11

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
pancreas	islet cell hyperplasia		<50>				<50>				<50>				<50>			
		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)
	hyperplasia:acinar cell		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)
(Urinary system)																		
kidney	cyst		<50>				<50>				<50>				<50>			
		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)
	deposit of hemosiderin		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)
	scar		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)
	chronic nephropathy		20 (40)	12 (24)	13 (26)	4 (8)	12 (24)	13 (26)	18 (36)	6 (12)	15 (30)	16 (32)	13 (26)	4 (8)	16 (32)	12 (24)	17 (34)	2 (4)
	tubular necrosis		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)	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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 12

Organ	Findings	Group Name No. of Animals on Study Grade	Control 50				5 ppm 50				20 ppm 50				80 ppm 50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Urinary system)																		
kidney	mineralization:pelvis		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)
	urothelial hyperplasia:pelvis		3 (6)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	atypical tubule hyperplasia		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	dilated 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)	0 (0)	0 (0)	0 (0)	0 (0)
	urin bladd	dilatation		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)
	inflammation		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)
	simple hyperplasia:transitional epithelium		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)
(Endocrine system)																		
pituitary	angiectasis		2 (4)	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)

(Endocrine system)

pituitary	angiectasis		<50>				<50>				<50>				<50>			
			2 (4)	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)

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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 13

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
pituitary			<50>				<50>				<50>				<50>			
	cyst		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia		8 (16)	5 (10)	0 (0)	0 (0)	10 (20)	5 (10)	0 (0)	0 (0)	9 (18)	6 (12)	0 (0)	0 (0)	8 (16)	10 (20)	0 (0)	0 (0)
	Rathke pouch		3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
thyroid			<50>				<50>				<50>				<50>			
	ultimobranchial body remanet		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)
	C-cell hyperplasia		18 (36)	4 (8)	0 (0)	0 (0)	19 (38)	4 (8)	0 (0)	0 (0)	10 (20)	5 (10)	0 (0)	0 (0)	10 (20)	6 (12)	0 (0)	0 (0)
	cystic thyroid follicle		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
adrenal			<50>				<50>				<50>				<50>			
	hyperplasia:cortical cell		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 14

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																		
adrenal			<50>				<50>				<50>				<50>			
	hyperplasia:medulla	8	5	0	0	6	4	0	0	5	3	0	0	6	5	0	0	
		(16)	(10)	(0)	(0)	(12)	(8)	(0)	(0)	(10)	(6)	(0)	(0)	(12)	(10)	(0)	(0)	
(Reproductive system)																		
testis			<50>				<50>				<50>				<50>			
	mineralization	5	0	0	0	7	0	0	0	6	0	0	0	5	0	0	0	
		(10)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	
	arteritis	2	1	0	0	2	1	0	0	4	0	0	0	6	0	0	0	
		(4)	(2)	(0)	(0)	(4)	(2)	(0)	(0)	(8)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	
	interstitial cell hyperplasia	9	3	0	0	11	0	0	0	15	1	0	0	10	0	0	0	
		(18)	(6)	(0)	(0)	(22)	(0)	(0)	(0)	(30)	(2)	(0)	(0)	(20)	(0)	(0)	(0)	
semin ves			<50>				<50>				<50>				<50>			
	inflammation	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)	
prostate			<50>				<50>				<50>				<50>			
	inflammation	3	3	0	0	6	1	0	0	5	0	0	0	7	3	0	0	
		(6)	(6)	(0)	(0)	(12)	(2)	(0)	(0)	(10)	(0)	(0)	(0)	(14)	(6)	(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. : 0731
 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 Grade	Control				5 ppm				20 ppm				80 ppm			
			50				50				50				50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Reproductive system)																		
prostate	hyperplasia		7 (14)	0 (0)	0 (0)	0 (0)	6 (12)	3 (6)	0 (0)	0 (0)	4 (8)	2 (4)	0 (0)	0 (0)	7 (14)	2 (4)	0 (0)	0 (0)
			<50>				<50>				<50>				<50>			
	fibrosis		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)
mammary gl	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
			<50>				<50>				<50>				<50>			
	galactocoele		0 (0)	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)
(Nervous system)																		
brain	hemorrhage		2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
			<50>				<50>				<50>				<50>			
spinal cord	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
			<50>				<50>				<50>				<50>			

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. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 16

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
(Special sense organs/appendage)																		
eye			<50>				<50>				<50>				<50>			
	cataract		5 (10)	1 (2)	3 (6)	0 (0)	4 (8)	0 (0)	4 (8)	0 (0)	1 (2)	1 (2)	2 (4)	0 (0)	2 (4)	2 (4)	0 (0)	0 (0)
	retinal atrophy		2 (4)	4 (8)	3 (6)	0 (0)	1 (2)	2 (4)	3 (6)	0 (0)	1 (2)	2 (4)	2 (4)	0 (0)	1 (2)	0 (0)	2 (4)	0 (0)
	keratitis		2 (4)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	1 (2)	0 (0)	0 (0)	3 (6)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)
	iritis		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)	1 (2)	0 (0)
Harder gl			<50>				<50>				<50>				<50>			
	lymphocytic infiltration		2 (4)	2 (4)	1 (2)	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)
(Musculoskeletal system)																		
muscle			<50>				<50>				<50>				<50>			
	atrophy		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 17

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			50				50				50				50			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Musculoskeletal system)																		
muscle	mineralization		<50>				<50>				<50>				<50>			
			0 (0)	0 (0)	1 (2)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
(Body cavities)																		
mediastinum	arteritis		<50>				<50>				<50>				<50>			
			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)
peritoneum	inflammation		<50>				<50>				<50>				<50>			
			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)
retroperit	cyst		<50>				<50>				<50>				<50>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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 L2

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 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				Control				5 ppm				20 ppm				80 ppm			
		Grade				12				8				12				16			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																					
nasal cavit		<12>				<8>				<12>				<16>							
	thrombus	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0
		(0)	(17)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(19)	(0)	(0)
	lymphocytic infiltration	1	0	0	0	0	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)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	3	0	0	0	4	1	0	0	4	0	0	0	4	0	0	0	9	1	0	0
		(25)	(0)	(0)	(0)	(50)	(13)	(0)	(0)	(33)	(0)	(0)	(0)	(33)	(0)	(0)	(0)	(56)	(6)	(0)	(0)
	eosinophilic change:respiratory epithelium	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
		(8)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(19)	(0)	(0)	(0)
	inflammation:foreign body	4	0	0	0	2	1	0	0	4	1	0	0	4	1	0	0	3	0	0	0
		(33)	(0)	(0)	(0)	(25)	(13)	(0)	(0)	(33)	(8)	(0)	(0)	(33)	(8)	(0)	(0)	(19)	(0)	(0)	(0)
	inflammation:respiratory epithelium	0	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	5	0	0	0
		(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(8)	(8)	(0)	(0)	(8)	(8)	(0)	(0)	(31)	(0)	(0)	(0)
	respiratory metaplasia:olfactory epithelium	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	respiratory metaplasia:gland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
nasal cavit			<12>				< 8>				<12>				<16>			
	squamous cell metaplasia:respiratory epithelium		2 (17)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	5 (31)	0 (0)	0 (0)	0 (0)
	ulcer:respiratory 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 (6)	0 (0)	0 (0)	0 (0)
	hyperplasia:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	2 (25)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	erosion:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	atrophy:olfactory epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)	
larynx			<12>				< 8>				<12>				<16>			
	inflammation		1 (8)	0 (0)	0 (0)	0 (0)	2 (25)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
trachea			<12>				< 8>				<12>				<16>			
	leukemic cell 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 (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. : 0731
 ANIMAL : RAT F344/DuCrIj [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	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
lung			<12>				< 8>				<12>				<16>			
	congestion		2 (17)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)
	edema		0 (0)	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 (6)	1 (6)	0 (0)
	inflammatory infiltration		2 (17)	1 (8)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		2 (17)	0 (0)	0 (0)	0 (0)	4 (50)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	6 (38)	1 (6)	0 (0)
	metastasis:thyroid tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)
	metastasis:spleen tumor		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:Zymbal gland tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

(Hematopoietic system)

bone marrow				<12>				< 8>				<12>				<16>			
	congestion			0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
				(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		12				8				12				16			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																	
bone marrow		<12>				< 8>				<12>				<16>			
	granulation	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	leukemic cell infiltration	2	0	0	0	3	0	0	0	1	0	0	0	3	0	0	0
		(17)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(19)	(0)	(0)	(0)
	increased hematopoiesis	1	0	0	0	3	0	0	0	5	0	0	0	2	0	0	0
		(8)	(0)	(0)	(0)	(38)	(0)	(0)	(0)	(42)	(0)	(0)	(0)	(13)	(0)	(0)	(0)
lymph node		<12>				< 8>				<12>				<16>			
	leukemic cell infiltration	0	1	0	0	0	1	0	0	0	0	0	0	2	1	0	0
		(0)	(8)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(13)	(6)	(0)	(0)
	metastasis:thyroid tumor	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(6)	(0)	(0)	(0)
spleen		<12>				< 8>				<12>				<16>			
	atrophy	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)
	congestion	2	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(13)	(0)	(0)	(0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
< a > a : Number of animals examined at the site
b : 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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
spleen			<12>				< 8>				<12>				<16>			
	fatty change		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
	deposit of hemosiderin		5 (42)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	3 (25)	1 (8)	0 (0)	0 (0)	3 (19)	0 (0)	0 (0)	0 (0)
	fibrosis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)
	extramedullary hematopoiesis		3 (25)	2 (17)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	2 (17)	3 (25)	0 (0)	0 (0)	2 (13)	1 (6)	0 (0)	0 (0)
(Circulatory system)																		
heart			<12>				< 8>				<12>				<16>			
	thrombus		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	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)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (25)	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. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [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				5 ppm				20 ppm				80 ppm			
			12	12	12	12	8	8	8	8	12	12	12	12	16	16	16	16
			1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Circulatory system)																		
heart			<12>				< 8>				<12>				<16>			
	myocardial fibrosis		8	0	0	0	2	1	0	0	5	1	1	0	9	3	0	0
			(67)	(0)	(0)	(0)	(25)	(13)	(0)	(0)	(42)	(8)	(8)	(0)	(56)	(19)	(0)	(0)
	subendocardial fibrosis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	arteritis		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
artery/aort			<12>				< 8>				<12>				<16>			
	mineralization		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)	(8)	(8)	(0)	(0)	(0)	(0)	(0)
(Digestive system)																		
oral cavity			<12>				< 8>				<12>				<16>			
	squamous cell hyperplasia		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
tongue			<12>				< 8>				<12>				<16>			
	mineralization		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 7

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		12				8				12				16			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
tongue		<12>				< 8>				<12>				<16>			
	leukemic cell infiltration	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)	(6)	(0)	(0)	(0)
	arteritis	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(17)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
stomach		<12>				< 8>				<12>				<16>			
	leukemic cell infiltration	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	metastasis:peritoneum tumor	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)	(8)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:forestomach	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:forestomach	0	4	0	0	1	1	0	0	0	1	0	0	2	0	0	0 *
		(0)	(33)	(0)	(0)	(13)	(13)	(0)	(0)	(0)	(8)	(0)	(0)	(13)	(0)	(0)	(0)
	inflammation:forestomach	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
	erosion:glandular stomach	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(8)	(0)	(0)	(0)	(25)	(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. : 0731
ANIMAL : RAT F344/DuCrI CrIj [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				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
[Digestive system]																		
stomach			<12>				< 8>				<12>				<16>			
	inflammation:glandular stomach		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mineralization:glandular stomach		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	squamous cell hyperplasia:forestomach		0 (0)	1 (8)	1 (8)	0 (0)	3 (38)	1 (13)	0 (0)	0 (0)	5 (42)	1 (8)	0 (0)	0 (0)	3 (19)	0 (0)	0 (0)	0 (0)
small intes			<12>				< 8>				<12>				<16>			
	mineralization		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	inflammation		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:peritoneum tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
large intes			<12>				< 8>				<12>				<16>			
	leukemic cell infiltration		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	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. : 0731
ANIMAL : RAT F344/DuCrIj [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 12				5 ppm 8				20 ppm 12				80 ppm 16			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
large intes			<12>				< 8>				<12>				<16>			
	metastasis:peritoneum tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
liver			<12>				< 8>				<12>				<16>			
	herniation		0 (0)	0 (0)	0 (0)	0 (0)	3 (38)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	7 (44)	0 (0)	0 (0)	0 * (0)
	necrosis:central		2 (17)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (6)	1 (6)	0 (0)	0 (0)
	necrosis:focal		1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	fatty change		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
	fatty change:peripheral		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	granulation		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 (6)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		1 (8)	0 (0)	0 (0)	0 (0)	4 (50)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	4 (25)	2 (13)	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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [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 No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
liver			<12>				< 8>				<12>				<16>			
	metastasis:spleen tumor		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	clear cell focus		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
	spongiosis hepatitis		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 (13)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia		2 (17)	9 (75)	0 (0)	0 (0)	2 (25)	5 (63)	0 (0)	0 (0)	6 (50)	4 (33)	0 (0)	0 (0)	3 (19)	11 (69)	0 (0)	0 (0)
	focal fatty change		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
pancreas			<12>				< 8>				<12>				<16>			
	atrophy		6 (50)	0 (0)	0 (0)	0 (0)	4 (50)	0 (0)	0 (0)	0 (0)	2 (17)	1 (8)	0 (0)	0 (0)	4 (25)	0 (0)	1 (6)	0 (0)
	leukemic cell infiltration		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)
	metastasis:peritoneum tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 ANIMAL : RAT F344/DuCrIj [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				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																		
kidney	deposit of hemosiderin		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	scar		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (19)	0 (0)	0 (0)	0 (0)
	chronic nephropathy		4 (33)	4 (33)	1 (8)	2 (17)	4 (50)	0 (0)	1 (13)	2 (25)	6 (50)	1 (8)	0 (0)	3 (25)	8 (50)	1 (6)	4 (25)	0 (0)
	tubular necrosis		1 (8)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)
	mineralization:pelvis		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	urothelial hyperplasia:pelvis		2 (17)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	dilated pelvis		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
 < a > a : Number of animals examined at the site
 b : 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. : 0731
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 : 12

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																		
urin bladd	dilatation		<12>				< 8>				<12>				<16>			
			0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (19)	0 (0)	0 (0)
	inflammation		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(Endocrine system)																		
pituitary	angiectasis		<12>				< 8>				<12>				<16>			
			1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia		0 (0)	1 (8)	0 (0)	0 (0)	2 (25)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	2 (13)	1 (6)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
thyroid	C-cell hyperplasia		<12>				< 8>				<12>				<16>			
			1 (8)	1 (8)	0 (0)	0 (0)	3 (38)	0 (0)	0 (0)	0 (0)	1 (8)	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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 13

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																		
adrenal	leukemic cell infiltration		<12>				< 8>				<12>				<16>			
			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 (6)	0 (0)	0 (0)	0 (0)
	hyperplasia:medulla		2 (17)	1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
(Reproductive system)																		
testis	mineralization		<12>				< 8>				<12>				<16>			
			0 (0)	0 (0)	0 (0)	0 (0)	2 (25)	0 (0)	0 (0)	0 (0)	4 (33)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	arteritis		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
	interstitial cell hyperplasia		4 (33)	2 (17)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	4 (25)	0 (0)	0 (0)	0 (0)
semin ves	inflammation		<12>				< 8>				<12>				<16>			
			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 (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. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 14

Organ_____	Findings_____	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Reproductive system)																		
semin ves	leukemic cell infiltration		<12>				< 8>				<12>				<16>			
			1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
prostate	inflammation		<12>				< 8>				<12>				<16>			
			1 (8)	2 (17)	0 (0)	0 (0)	2 (25)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (19)	1 (6)	0 (0)	0 (0)
	hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
(Nervous system)																		
brain	hemorrhage		<12>				< 8>				<12>				<16>			
			2 (17)	0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	1 (13)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	3 (19)	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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 15

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
(Nervous system)																		
spinal cord			<12>				< 8>				<12>				<16>			
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (6)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	1 (6)	1 (6)	1 (6)	0 (0)
	metastasis:bone tumor		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 (6)	0 (0)	0 (0)	0 (0)
 (Special sense organs/appendage)																		
eye			<12>				< 8>				<12>				<16>			
	cataract		0 (0)	1 (8)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	retinal atrophy		1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	keratitis		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Harder gl			<12>				< 8>				<12>				<16>			
	lymphocytic infiltration		1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 16

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Special sense organs/appendage)																		
Harder gl			<12>				< 8>				<12>				<16>			
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (19)	0 (0)	0 (0)	0 (0)
(Musculoskeletal system)																		
muscle			<12>				< 8>				<12>				<16>			
	atrophy		0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (13)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	mineralization		0 (0)	0 (0)	1 (8)	0 (0)	1 (13)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:bone tumor		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 (6)	0 (0)	0 (0)	0 (0)
(Body cavities)																		
mediastinum			<12>				< 8>				<12>				<16>			
	leukemic cell 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 (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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 17

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	12				8				12				16			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Body cavities)																		
mediastinum	arteritis		<12>				< 8>				<12>				<16>			
		0	1	0	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)
peritoneum	inflammation		<12>				< 8>				<12>				<16>			
		0	0	1	0	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)

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)

BA1S5

TABLE L3

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : MALE
SACRIFICED ANIMALS

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 1

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Integumentary system/appandage)																	
skin/app		<38>				<42>				<38>				<34>			
	erosion	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)
	inflammation	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
	basal cell hyperplasia	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
	epidermal cyst	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	sebaceous hyperplasia	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)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
subcutis		<38>				<42>				<38>				<34>			
	inflammation	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
(Respiratory system)																	
nasal cavit		<38>				<42>				<38>				<34>			
	lymphocytic infiltration	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 2

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
nasal cavit		<38>				<42>				<38>				<34>			
	leukemic cell infiltration	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	eosinophilic change:olfactory epithelium	24	8	0	0	28	6	0	0	20	13	1	0	20	10	0	0
		(63)	(21)	(0)	(0)	(67)	(14)	(0)	(0)	(53)	(34)	(3)	(0)	(59)	(29)	(0)	(0)
	eosinophilic change:respiratory epithelium	6	0	0	0	7	0	0	0	9	0	0	0	6	0	0	0
		(16)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(18)	(0)	(0)	(0)
	inflammation:foreign body	13	1	0	0	7	3	0	0	15	1	0	0	3	2	0	0 *
		(34)	(3)	(0)	(0)	(17)	(7)	(0)	(0)	(39)	(3)	(0)	(0)	(9)	(6)	(0)	(0)
	inflammation:respiratory epithelium	9	0	0	0	11	0	0	0	8	0	0	0	13	6	0	0 **
		(24)	(0)	(0)	(0)	(26)	(0)	(0)	(0)	(21)	(0)	(0)	(0)	(38)	(18)	(0)	(0)
	respiratory metaplasia:olfactory epithelium	4	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0
		(11)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	respiratory metaplasia:gland	4	0	0	0	3	0	0	0	2	0	0	0	4	0	0	0
		(11)	(0)	(0)	(0)	(7)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium	4	0	0	0	7	0	0	0	7	0	0	0	12	3	0	0 **
		(11)	(0)	(0)	(0)	(17)	(0)	(0)	(0)	(18)	(0)	(0)	(0)	(35)	(9)	(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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Organ_____	Findings_____	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	38				42				38				34			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
nasal cavit			<38>				<42>				<38>				<34>			
	ulcer:respiratory epithelium		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)	(3)	(3)	(0)	(0)
	hyperplasia:transitional epithelium		2	0	0	0	0	0	0	0	1	0	0	0	9	0	0	0 *
			(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(26)	(0)	(0)	(0)
	atrophy:olfactory epithelium		0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
larynx			<38>				<42>				<38>				<34>			
	inflammation		0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
			(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
lung			<38>				<42>				<38>				<34>			
	edema		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammatory infiltration		1	1	0	0	0	0	0	0	1	0	0	0	2	1	0	0
			(3)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(3)	(0)	(0)
	leukemic cell infiltration		3	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0
			(8)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(6)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIcrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 4

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
lung		<38>				<42>				<38>				<34>			
	metastasis:subcutis tumor	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)
	bronchiolar-alveolar cell hyperplasia	2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)
(Hematopoietic system)																	
bone marrow		<38>				<42>				<38>				<34>			
	granulation	2 (5)	0 (0)	0 (0)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	leukemic cell 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)
	increased hematopoiesis	1 (3)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
lymph node		<38>				<42>				<38>				<34>			
	lymphadenitis	0 (0)	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)

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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 5

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																	
spleen		<38>				<42>				<38>				<34>			
	congestion	11 (29)	0 (0)	0 (0)	0 (0)	10 (24)	0 (0)	0 (0)	0 (0)	9 (24)	0 (0)	0 (0)	0 (0)	6 (18)	0 (0)	0 (0)	0 (0)
	deposit of hemosiderin	6 (16)	0 (0)	0 (0)	0 (0)	17 (40)	0 (0)	0 (0)	0 * (0)	7 (18)	0 (0)	0 (0)	0 (0)	6 (18)	1 (3)	0 (0)	0 (0)
	fibrosis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)
	extramedullary hematopoiesis	6 (16)	0 (0)	0 (0)	0 (0)	9 (21)	0 (0)	0 (0)	0 (0)	5 (13)	1 (3)	0 (0)	0 (0)	8 (24)	2 (6)	0 (0)	0 (0)
(Circulatory system)																	
heart		<38>				<42>				<38>				<34>			
	mineralization	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)
	myocardial fibrosis	18 (47)	2 (5)	0 (0)	0 (0)	23 (55)	3 (7)	1 (2)	0 (0)	20 (53)	2 (5)	0 (0)	0 (0)	17 (50)	2 (6)	1 (3)	0 (0)
	subendocardial fibrosis	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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 6

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Circulatory system]																	
artery/aort	mineralization	<38>				<42>				<38>				<34>			
		0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
		(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)
[Digestive system]																	
oral cavity	dysplasia	<38>				<42>				<38>				<34>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell hyperplasia	<38>				<42>				<38>				<34>			
		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
tooth	dysplasia	<38>				<42>				<38>				<34>			
		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)
tongue	mineralization	<38>				<42>				<38>				<34>			
		0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	lymphocytic infiltration	<38>				<42>				<38>				<34>			
		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 7

Organ	Findings	Control				5 ppm				20 ppm				80 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+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
stomach		<38>				<42>				<38>				<34>			
	ulcer:forestomach	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(3)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	erosion:glandular stomach	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	ulcer:glandular stomach	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	mineralization:glandular stomach	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
		(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)
	squamous cell hyperplasia:forestomach	1	1	0	0	3	0	0	0	1	0	0	0	1	1	0	0
		(3)	(3)	(0)	(0)	(7)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(3)	(0)	(0)
small intes		<38>				<42>				<38>				<34>			
	mineralization	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
liver		<38>				<42>				<38>				<34>			
	herniation	4	0	0	0	6	0	0	0	2	0	0	0	7	0	0	0
		(11)	(0)	(0)	(0)	(14)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(21)	(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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 8

Organ	Findings	Group Name No. of Animals on Study Grade	Control 38				5 ppm 42				20 ppm 38				80 ppm 34			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
liver			<38>				<42>				<38>				<34>			
	fatty change		1 (3)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)
	granulation		7 (18)	0 (0)	0 (0)	0 (0)	4 (10)	2 (5)	0 (0)	0 (0)	8 (21)	0 (0)	0 (0)	0 (0)	7 (21)	1 (3)	0 (0)	0 (0)
	leukemic cell infiltration		3 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)
	clear cell focus		2 (5)	1 (3)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	3 (9)	0 (0)	0 (0)	0 (0)
	acidophilic cell focus		4 (11)	4 (11)	0 (0)	0 (0)	8 (19)	3 (7)	0 (0)	0 (0)	4 (11)	1 (3)	0 (0)	0 (0)	3 (9)	1 (3)	0 (0)	0 (0)
	basophilic cell focus		4 (11)	1 (3)	0 (0)	0 (0)	3 (7)	4 (10)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	2 (6)	3 (9)	0 (0)	0 (0)
	mixed cell focus		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)
	spongiosis hepatis		2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	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 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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 9

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
liver		<38>				<42>				<38>				<34>			
	bile duct hyperplasia	3	35	0	0	0	42	0	0	2	36	0	0	1	31	0	0
		(8)	(92)	(0)	(0)	(0)	(100)	(0)	(0)	(5)	(95)	(0)	(0)	(3)	(91)	(0)	(0)
	biliary cyst	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)
	focal fatty change	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
pancreas		<38>				<42>				<38>				<34>			
	atrophy	22	5	0	0	22	0	1	0 *	26	3	0	0	20	4	1	0
		(58)	(13)	(0)	(0)	(52)	(0)	(2)	(0)	(68)	(8)	(0)	(0)	(59)	(12)	(3)	(0)
	arteritis	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
	islet cell hyperplasia	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)
	hyperplasia:acinar cell	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)
(Urinary system)																	
kidney		<38>				<42>				<38>				<34>			
	cyst	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 10

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																	
kidney		<38>				<42>				<38>				<34>			
	deposit of hemosiderin	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)
	chronic nephropathy	16	8	12	2	8	13	17	4	9	15	13	1	8	11	13	2
		(42)	(21)	(32)	(5)	(19)	(31)	(40)	(10)	(24)	(39)	(34)	(3)	(24)	(32)	(38)	(6)
urin bladd	urothelial hyperplasia:pelvis	1	0	0	0	4	0	0	0	0	0	0	0	4	0	0	0
		(3)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(0)	(0)	(0)
	atypical tubule hyperplasia	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	dilatation	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		<38>				<42>				<38>				<34>			
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
	simple hyperplasia:transitional epithelium	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
		<38>				<42>				<38>				<34>			
pituitary	angiectasis	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
		(3)	(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
		<38>				<42>				<38>				<34>			
		(3)	(3)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
		<38>				<42>				<38>				<34>			

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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 11

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																	
pituitary		<38>				<42>				<38>				<34>			
	cyst	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	hyperplasia	8	4	0	0	8	5	0	0	8	5	0	0	6	9	0	0
		(21)	(11)	(0)	(0)	(19)	(12)	(0)	(0)	(21)	(13)	(0)	(0)	(18)	(26)	(0)	(0)
	Rathke pouch	3	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0
		(8)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
thyroid		<38>				<42>				<38>				<34>			
	ultimobranchial body remanet	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)
	C-cell hyperplasia	17	3	0	0	16	4	0	0	9	5	0	0	10	6	0	0
		(45)	(8)	(0)	(0)	(38)	(10)	(0)	(0)	(24)	(13)	(0)	(0)	(29)	(18)	(0)	(0)
	cystic thyroid follicle	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
adrenal		<38>				<42>				<38>				<34>			
	hyperplasia:cortical cell	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)

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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 12

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Endocrine system)																	
adrenal		<38>				<42>				<38>				<34>			
	hyperplasia:medulla	6	4	0	0	6	3	0	0	5	3	0	0	5	5	0	0
		(16)	(11)	(0)	(0)	(14)	(7)	(0)	(0)	(13)	(8)	(0)	(0)	(15)	(15)	(0)	(0)
(Reproductive system)																	
testis		<38>				<42>				<38>				<34>			
	mineralization	5	0	0	0	5	0	0	0	2	0	0	0	5	0	0	0
		(13)	(0)	(0)	(0)	(12)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	arteritis	1	1	0	0	2	1	0	0	3	0	0	0	5	0	0	0
		(3)	(3)	(0)	(0)	(5)	(2)	(0)	(0)	(8)	(0)	(0)	(0)	(15)	(0)	(0)	(0)
	interstitial cell hyperplasia	5	1	0	0	10	0	0	0	13	1	0	0	6	0	0	0
		(13)	(3)	(0)	(0)	(24)	(0)	(0)	(0)	(34)	(3)	(0)	(0)	(18)	(0)	(0)	(0)
prostate		<38>				<42>				<38>				<34>			
	inflammation	2	1	0	0	4	0	0	0	5	0	0	0	4	2	0	0
		(5)	(3)	(0)	(0)	(10)	(0)	(0)	(0)	(13)	(0)	(0)	(0)	(12)	(6)	(0)	(0)
	hyperplasia	7	0	0	0	5	3	0	0	4	2	0	0	7	2	0	0
		(18)	(0)	(0)	(0)	(12)	(7)	(0)	(0)	(11)	(5)	(0)	(0)	(21)	(6)	(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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 13

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	38				42				38				34			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Reproductive system)																		
prostate	fibrosis		<38>				<42>				<38>				<34>			
			0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
mammary gl	hyperplasia		<38>				<42>				<38>				<34>			
			0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
	galactocoele		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)
(Nervous system)																		
brain	hemorrhage		<38>				<42>				<38>				<34>			
			0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	metastasis:pituitary tumor		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)
(Special sense organs/appendage)																		
eye	cataract		<38>				<42>				<38>				<34>			
			5	0	3	0	3	0	4	0	1	1	2	0	2	2	0	0
			(13)	(0)	(8)	(0)	(7)	(0)	(10)	(0)	(3)	(3)	(5)	(0)	(6)	(6)	(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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 14

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		Group Name No. of Animals on Study Grade	38	1+	2+	3+	4+	42	1+	2+	3+	4+	38	1+	2+	3+	4+
				(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)
[Special sense organs/appendage]																	
eye			<38>					<42>					<38>				<34>
	retinal atrophy		1 4 3 0	(3)	(11)	(8)	(0)	0 2 3 0	(0)	(5)	(7)	(0)	1 2 2 0	(3)	(5)	(5)	(0)
	keratitis		1 0 0 0	(3)	(0)	(0)	(0)	2 0 1 0	(5)	(0)	(2)	(0)	0 2 1 0	(0)	(5)	(3)	(0)
	iritis		0 0 0 0	(0)	(0)	(0)	(0)	0 0 1 0	(0)	(0)	(2)	(0)	0 0 0 0	(0)	(0)	(0)	(0)
Harder gl			<38>					<42>					<38>				<34>
	lymphocytic infiltration		1 2 1 0	(3)	(5)	(3)	(0)	0 0 0 0	(0)	(0)	(0)	(0)	1 0 0 0	(3)	(0)	(0)	(0)
	leukemic cell infiltration		1 0 0 0	(3)	(0)	(0)	(0)	1 0 0 0	(2)	(0)	(0)	(0)	3 0 0 0	(8)	(0)	(0)	(0)
[Musculoskeletal system]																	
muscle			<38>					<42>					<38>				<34>
	mineralization		0 0 0 0	(0)	(0)	(0)	(0)	0 0 0 0	(0)	(0)	(0)	(0)	0 0 0 0	(0)	(0)	(0)	(0)

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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 15

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		38				42				38				34			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Musculoskeletal system]																	
muscle		<38>				<42>				<38>				<34>			
	metastasis:subcutis tumor	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)
[Body cavities]																	
pleura		<38>				<42>				<38>				<34>			
	metastasis:bone tumor	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
mediastinum		<38>				<42>				<38>				<34>			
	metastasis:bone tumor	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
retroperit		<38>				<42>				<38>				<34>			
	cyst	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)

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

TABLE L4

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
ALL ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 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				Control				5 ppm				20 ppm				80 ppm			
		Grade				50				50				50				50			
		1+	2+	3+	4+	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>			
	inflammation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	fibrosis	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)
	scab	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)
	epidermal cyst	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
(Respiratory system)																					
nasal cavit		<50>				<50>				<50>				<50>				<50>			
	thrombus	0 (0)	2 (4)	0 (0)	0 (0)	1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)
	eosinophilic change:olfactory epithelium	10 (20)	37 (74)	2 (4)	0 (0)	10 (20)	36 (72)	4 (8)	0 (0)	4 (8)	41 (82)	4 (8)	0 (0)	7 (14)	42 (84)	1 (2)	0 (0)	7 (14)	42 (84)	1 (2)	0 (0)
	eosinophilic change:respiratory epithelium	37 (74)	0 (0)	0 (0)	0 (0)	38 (76)	0 (0)	0 (0)	0 (0)	39 (78)	0 (0)	0 (0)	0 (0)	40 (80)	0 (0)	0 (0)	0 (0)	40 (80)	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. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 19

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
nasal cavit			<50>				<50>				<50>				<50>			
	inflammation:foreign body		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)
	inflammation:respiratory epithelium		6 (12)	0 (0)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	8 (16)	0 (0)	0 (0)	0 (0)	18 (36)	2 (4)	0 (0)	0 ** (0)
	inflammation:olfactory epithelium		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)
	respiratory metaplasia:olfactory epithelium		4 (8)	0 (0)	0 (0)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:gland		2 (4)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	10 (20)	0 (0)	0 (0)	0 * (0)
	ulcer:respiratory 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 (2)	2 (4)	0 (0)	0 (0)
	hyperplasia:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 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				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
nasal cavit			<50>				<50>				<50>				<50>			
	atrophy: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 (2)	0 (0)	0 (0)	0 (0)
	vacuolic change:olfactory epithelium		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)
larynx			<50>				<50>				<50>				<50>			
	inflammation		4 (8)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	0 (0)
lung			<50>				<50>				<50>				<50>			
	congestion		1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (6)	1 (2)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	edema		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)
	inflammatory infiltration		0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	2 (4)	4 (8)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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				Control				5 ppm				20 ppm				80 ppm			
		Grade				50				50				50				50			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																					
lung		<50>				<50>				<50>				<50>				<50>			
	accumulation of foamy cells	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
		<50>				<50>				<50>				<50>				<50>			
	bronchiolar-alveolar cell hyperplasia	1	0	0	0	3	0	0	0	4	0	0	0	2	0	0	0	2	0	0	0
		(2)	(0)	(0)	(0)	(6)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)
(Hematopoietic system)																					
bone marrow		<50>				<50>				<50>				<50>				<50>			
	granulation	12	1	0	0	10	4	2	0	12	3	1	0	12	4	0	0	12	4	0	0
		(24)	(2)	(0)	(0)	(20)	(8)	(4)	(0)	(24)	(6)	(2)	(0)	(24)	(8)	(0)	(0)	(24)	(8)	(0)	(0)
		<50>				<50>				<50>				<50>				<50>			
	increased hematopoiesis	8	0	0	0	4	0	0	0	4	0	0	0	5	0	0	0	10	0	0	0
		(16)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(10)	(0)	(0)	(0)	(10)	(0)	(0)	(0)
lymph node		<50>				<50>				<50>				<50>				<50>			
	lymphadenitis	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)	(0)	(0)	(0)
spleen		<50>				<50>				<50>				<50>				<50>			
	congestion	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		(4)	(0)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(0)	(0)	(0)

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 22

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																		
spleen			<50>				<50>				<50>				<50>			
	deposit of hemosiderin	17 (34)	23 (46)	0 (0)	0 (0)	15 (30)	22 (44)	0 (0)	0 (0)	18 (36)	23 (46)	0 (0)	0 (0)	14 (28)	25 (50)	0 (0)	0 (0)	
	extramedullary hematopoiesis	9 (18)	3 (6)	1 (2)	0 (0)	9 (18)	4 (8)	0 (0)	0 (0)	8 (16)	5 (10)	0 (0)	0 (0)	7 (14)	5 (10)	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)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	inflammatory infiltration	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	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)	0 (0)	0 (0)	0 (0)	0 (0)	
	inflammatory cell nest	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)	
	myocardial fibrosis	24 (48)	1 (2)	0 (0)	0 (0)	23 (46)	0 (0)	0 (0)	0 (0)	21 (42)	1 (2)	0 (0)	0 (0)	22 (44)	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 ; * : $P \leq 0.05$ ** : $P \leq 0.01$ Test of Chi Square

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 23

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Circulatory system)																		
heart	subendocardial fibrosis		<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)
(Digestive system)																		
oral cavity	inflammation		<50>				<50>				<50>				<50>			
		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)	(0)	(0)	(0)
	squamous cell hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)
tongue	inflammatory infiltration		<50>				<50>				<50>				<50>			
		1	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(2)	(2)	(0)	(0)
	lymphocytic infiltration		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)	(0)
	epidermal cyst		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 24

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
tongue			<50>				<50>				<50>				<50>			
	arteritis		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)
stomach			<50>				<50>				<50>				<50>			
	necrosis:focal		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)
	ulcer:forestomach		1	2	0	0	3	2	2	0	0	2	1	0	1	1	0	0
			(2)	(4)	(0)	(0)	(6)	(4)	(4)	(0)	(0)	(4)	(2)	(0)	(2)	(2)	(0)	(0)
	inflammation:forestomach		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)
	inflammation:glandular stomach		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell hyperplasia:forestomach		2	1	1	0	2	6	1	0	0	1	2	0	2	4	0	0
			(4)	(2)	(2)	(0)	(4)	(12)	(2)	(0)	(0)	(2)	(4)	(0)	(4)	(8)	(0)	(0)
small intes			<50>				<50>				<50>				<50>			
	inflammatory infiltration		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 25

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver			<50>				<50>				<50>				<50>			
	herniation		11 (22)	0 (0)	0 (0)	0 (0)	12 (24)	0 (0)	0 (0)	0 (0)	11 (22)	0 (0)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)
	congestion		0 (0)	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)
	necrosis:central		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)	2 (4)	0 (0)	0 (0)
	necrosis:focal		3 (6)	1 (2)	1 (2)	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)
	fatty change		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
	fatty change:central		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)
	fatty change:peripheral		0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)
inflammatory infiltration		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)	

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade				50				50				50				50			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																					
liver		<50>				<50>				<50>				<50>				<50>			
	lymphocytic infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	granulation	19 (38)	3 (6)	0 (0)	0 (0)	12 (24)	5 (10)	0 (0)	0 (0)	21 (42)	6 (12)	1 (2)	0 (0)	16 (32)	5 (10)	1 (2)	0 (0)	16 (32)	5 (10)	1 (2)	0 (0)
	clear cell focus	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	acidophilic cell focus	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	basophilic cell focus	26 (52)	5 (10)	0 (0)	0 (0)	25 (50)	1 (2)	0 (0)	0 (0)	19 (38)	2 (4)	0 (0)	0 (0)	16 (32)	4 (8)	0 (0)	0 (0)	16 (32)	4 (8)	0 (0)	0 (0)
	mixed cell focus	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	bile duct hyperplasia	19 (38)	3 (6)	0 (0)	0 (0)	14 (28)	2 (4)	0 (0)	0 (0)	12 (24)	4 (8)	0 (0)	0 (0)	22 (44)	4 (8)	0 (0)	0 (0)	22 (44)	4 (8)	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)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
 < a > a : Number of animals examined at the site
 b 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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 27

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver	biliary cyst		<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)
	focal fatty change		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)
pancreas	atrophy		<50>				<50>				<50>				<50>			
		7 (14)	1 (2)	0 (0)	0 (0)	4 (8)	4 (8)	0 (0)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)	
		inflammation		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)
		islet cell hyperplasia		0 (0)	1 (2)	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)
(Urinary system)																		
kidney	inflammatory infiltration		<50>				<50>				<50>				<50>			
		0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 28

Organ_____	Findings_____	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																		
kidney																		
			<50>				<50>				<50>				<50>			
scar			0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
chronic nephropathy			29 (58)	9 (18)	3 (6)	0 (0)	29 (58)	8 (16)	3 (6)	0 (0)	32 (64)	6 (12)	4 (8)	0 (0)	34 (68)	8 (16)	0 (0)	1 (2)
tubular necrosis			0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)
mineralization:cortico-medullary junction			0 (0)	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)
mineralization:papilla			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)
mineralization:pelvis			0 (0)	1 (2)	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)
atypical tubule 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)
dilated pelvis			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Grade 1+ : Slight 2+ : Moderate 3+ : Marked 4+ : Severe
< a > a : Number of animals examined at the site
b 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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 29

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																		
urin bladd			<50>				<50>				<50>				<50>			
	simple hyperplasia:transitional epithelium		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)
(Endocrine system)																		
pituitary			<50>				<50>				<50>				<50>			
	angiectasis		2 (4)	2 (4)	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)
	cyst		6 (12)	2 (4)	0 (0)	0 (0)	3 (6)	2 (4)	0 (0)	0 (0)	7 (14)	1 (2)	0 (0)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)
	hyperplasia		8 (16)	10 (20)	0 (0)	0 (0)	6 (12)	12 (24)	0 (0)	0 (0)	8 (16)	6 (12)	0 (0)	0 (0)	7 (14)	9 (18)	0 (0)	0 (0)
	Rathke pouch		1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
thyroid			<50>				<50>				<50>				<50>			
	ultimobranchial body remanet		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)

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. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 30

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
thyroid	C-cell hyperplasia		<50>				<50>				<50>				<50>			
		16 (32)	2 (4)	0 (0)	0 (0)	15 (30)	5 (10)	0 (0)	0 (0)	12 (24)	3 (6)	0 (0)	0 (0)	19 (38)	1 (2)	0 (0)	0 (0)	
adrenal	fatty change		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	
	hyperplasia:medulla		1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		focal fatty change:cortex		2 (4)	1 (2)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)	2 (4)	2 (4)	0 (0)
(Reproductive system)																		
ovary	cyst		<50>				<50>				<50>				<50>			
		0 (0)	3 (6)	0 (0)	0 (0)	1 (2)	2 (4)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)	0 (0)	
uterus	hyperplasia:epithelium		<50>				<50>				<50>				<50>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 31

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	50				50				50				50			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Reproductive system]																		
uterus			<50>				<50>				<50>				<50>			
	cystic endometrial hyperplasia		1	2	0	0	3	0	0	0	2	1	0	0	2	0	0	0
			(2)	(4)	(0)	(0)	(6)	(0)	(0)	(0)	(4)	(2)	(0)	(0)	(4)	(0)	(0)	(0)
[Nervous system]																		
brain			<50>				<50>				<50>				<50>			
	hemorrhage		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
spinal cord			<50>				<50>				<50>				<50>			
	hemorrhage		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)
	gliosis		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)
[Special sense organs/appendage]																		
eye			<50>				<50>				<50>				<50>			
	cataract		1	1	5	0	2	1	2	0	1	3	3	0	0	1	4	0
			(2)	(2)	(10)	(0)	(4)	(2)	(4)	(0)	(2)	(6)	(6)	(0)	(0)	(2)	(8)	(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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 32

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		50				50				50				50			
		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>			
	retinal atrophy	3	3	3	0	0	1	3	0	1	0	5	0	0	0	5	0
		(6)	(6)	(6)	(0)	(0)	(2)	(6)	(0)	(2)	(0)	(10)	(0)	(0)	(0)	(10)	(0)
	keratitis	1	1	0	0	1	0	0	0	2	1	0	0	1	1	2	0
		(2)	(2)	(0)	(0)	(2)	(0)	(0)	(0)	(4)	(2)	(0)	(0)	(2)	(2)	(4)	(0)
	iritis	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
		(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(0)
	mineralization:cornea	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Harder gl		<50>				<50>				<50>				<50>			
	degeneration	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)
	lymphocytic infiltration	2	0	0	0	0	3	0	0	3	0	0	0	1	0	0	0
		(4)	(0)	(0)	(0)	(0)	(6)	(0)	(0)	(6)	(0)	(0)	(0)	(2)	(0)	(0)	(0)
nasolacr d		<50>				<50>				<50>				<50>			
	inflammation	1	0	0	0	1	5	0	0	0	3	0	0	0	1	0	0
		(2)	(0)	(0)	(0)	(2)	(10)	(0)	(0)	(0)	(6)	(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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 33

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade				50				50				50				50			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Musculoskeletal system]																					
bone	osteosclerosis	<50>				<50>				<50>				<50>				<50>			
		1	0	0	0	2	2	0	0	2	3	3	0	3	0	0	0	3	0	0	0
		(2)	(0)	(0)	(0)	(4)	(4)	(0)	(0)	(4)	(6)	(6)	(0)	(6)	(0)	(0)	(0)	(6)	(0)	(0)	(0)
[Body cavities]																					
mediastinum	inflammation	<50>				<50>				<50>				<50>				<50>			
		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)	(0)	(0)	(0)
peritoneum	inflammation	<50>				<50>				<50>				<50>				<50>			
		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)	(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 L5

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
DEAD AND MORIBUND ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 18

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Integumentary system/appandage)																		
skin/app			< 9>				<13>				<12>				<12>			
	leukemic cell infiltration		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)	(8)	(0)	(0)	(0)	(0)	(0)
(Respiratory system)																		
nasal cavit			< 9>				<13>				<12>				<12>			
	thrombus		0	2	0	0	1	2	0	0	1	1	0	0	0	1	0	0
			(0)	(22)	(0)	(0)	(8)	(15)	(0)	(0)	(8)	(8)	(0)	(0)	(0)	(8)	(0)	(0)
	eosinophilic change:olfactory epithelium		2	6	0	0	7	5	1	0	2	9	0	0	2	10	0	0
			(22)	(67)	(0)	(0)	(54)	(38)	(8)	(0)	(17)	(75)	(0)	(0)	(17)	(83)	(0)	(0)
	eosinophilic change:respiratory epithelium		6	0	0	0	6	0	0	0	5	0	0	0	9	0	0	0
			(67)	(0)	(0)	(0)	(46)	(0)	(0)	(0)	(42)	(0)	(0)	(0)	(75)	(0)	(0)	(0)
	inflammation:respiratory epithelium		2	0	0	0	0	0	0	0	1	0	0	0	3	2	0	0
			(22)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(25)	(17)	(0)	(0)
	respiratory metaplasia:olfactory epithelium		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	squamous cell metaplasia:respiratory epithelium		1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
			(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(17)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Respiratory system)																		
nasal cavit	ulcer:respiratory epithelium		< 9>				<13>				<12>				<12>			
		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 (8)	2 (17)	0 (0)	0 (0)	
	hyperplasia:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
larynx	inflammation		< 9>				<13>				<12>				<12>			
		1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	
lung	congestion		< 9>				<13>				<12>				<12>			
		1 (11)	2 (22)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	3 (25)	1 (8)	0 (0)	0 (0)	2 (17)	1 (8)	0 (0)	0 (0)	
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	
	edema		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	inflammatory infiltration		0 (0)	1 (11)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	2 (17)	3 (25)	0 (0)	0 (0)	1 (8)	1 (8)	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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 20

Organ_____	Findings_____	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																		
lung			< 9>				<13>				<12>				<12>			
	leukemic cell infiltration		1 (11)	0 (0)	0 (0)	0 (0)	4 (31)	1 (8)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:liver tumor		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:kidney tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	accumulation of foamy cells		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(Hematopoietic system)																		
bone marrow			< 9>				<13>				<12>				<12>			
	granulation		1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (15)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (8)	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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 21

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 9				5 ppm 13				20 ppm 12				80 ppm 12			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Hematopoietic system)																		
bone marrow			< 9>				<13>				<12>				<12>			
	metastasis:adrenal tumor		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	increased hematopoiesis		4 (44)	0 (0)	0 (0)	0 (0)	3 (23)	0 (0)	0 (0)	0 (0)	3 (25)	0 (0)	0 (0)	0 (0)	3 (25)	0 (0)	0 (0)	0 (0)
lymph node			< 9>				<13>				<12>				<12>			
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:liver tumor		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
thymus			< 9>				<13>				<12>				<12>			
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
spleen			< 9>				<13>				<12>				<12>			
	congestion		1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)
	deposit of hemosiderin		4 (44)	2 (22)	0 (0)	0 (0)	0 (0)	6 (46)	0 (0)	0 * (0)	3 (25)	5 (42)	0 (0)	0 (0)	2 (17)	6 (50)	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. : 0731
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 : 22

Organ_____	Findings_____	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)			
(Hematopoietic system)																					
spleen			< 9>					<13>					<12>					<12>			
	metastasis:adrenal tumor	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)			
	extramedullary hematopoiesis	2 (22)	1 (11)	1 (11)	0 (0)	1 (8)	2 (15)	0 (0)	0 (0)	1 (8)	2 (17)	0 (0)	0 (0)	2 (17)	4 (33)	0 (0)	0 (0)				
(Circulatory system)																					
heart			< 9>					<13>					<12>					<12>			
	thrombus	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)			
	inflammatory infiltration	0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)			
	inflammatory cell nest	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)			
	leukemic cell infiltration	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)			
	myocardial fibrosis	3 (33)	0 (0)	0 (0)	0 (0)	4 (31)	0 (0)	0 (0)	0 (0)	3 (25)	1 (8)	0 (0)	0 (0)	5 (42)	1 (8)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 23

Organ	Findings	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
		Grade	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
tongue	inflammatory infiltration		< 9>				<13>				<12>				<12>			
			0 (0)	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 (8)	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 (8)	0 (0)	0 (0)	0 (0)
stomach	leukemic cell infiltration		< 9>				<13>				<12>				<12>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	ulcer:forestomach		1 (11)	0 (0)	0 (0)	0 (0)	3 (23)	2 (15)	2 (15)	0 (0)	0 (0)	2 (17)	1 (8)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)
	inflammation:glandular stomach		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	squamous cell hyperplasia:forestomach		1 (11)	0 (0)	0 (0)	0 (0)	1 (8)	6 (46)	1 (8)	0 (0)	0 (0)	1 (8)	2 (17)	0 (0)	1 (8)	3 (25)	0 (0)	0 (0)
small intes	leukemic cell infiltration		< 9>				<13>				<12>				<12>			
			0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 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 : 24

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 9				5 ppm 13				20 ppm 12				80 ppm 12			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Digestive system)																		
large intes	leukemic cell infiltration		< 9>				<13>				<12>				<12>			
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
liver	herniation		< 9>				<13>				<12>				<12>			
		2 (22)	0 (0)	0 (0)	0 (0)	2 (15)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	
	congestion	0 (0)	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 (8)	0 (0)	0 (0)	
		necrosis:central	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)
	necrosis:focal		1 (11)	1 (11)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		fatty change	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)
	fatty change:central		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		fatty change:peripheral	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 25

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade				9				13				12				12			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Digestive system]																					
liver		< 9>				<13>				<12>				<12>				<12>			
	inflammatory infiltration	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	granulation	2	0	0	0	3	0	0	0	2	1	0	0	2	1	0	0	2	0	0	0
		(22)	(0)	(0)	(0)	(23)	(0)	(0)	(0)	(17)	(8)	(0)	(0)	(17)	(8)	(0)	(0)	(17)	(0)	(0)	(0)
	leukemic cell infiltration	0	1	0	0	4	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0
		(0)	(11)	(0)	(0)	(31)	(8)	(0)	(0)	(17)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
pancreas	metastasis:kidney tumor	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)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic cell focus	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
		(11)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)
	bile duct hyperplasia	2	1	0	0	1	0	0	0	3	0	0	0	4	1	0	0	4	1	0	0
		(22)	(11)	(0)	(0)	(8)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(33)	(8)	(0)	(0)	(33)	(8)	(0)	(0)
	focal fatty change	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
pancreas		< 9>				<13>				<12>				<12>				<12>			
	atrophy	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		(11)	(11)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade				9				13				12				12			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																					
pancreas		< 9>				<13>				<12>				<12>				<12>			
	inflammation	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	metastasis:uterus tumor	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)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	metastasis:kidney tumor	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)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Urinary system)																					
kidney		< 9>				<13>				<12>				<12>				<12>			
	inflammatory infiltration	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	leukemic cell infiltration	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	chronic nephropathy	2	0	1	0	7	0	0	0	2	2	0	0	6	3	0	1	6	3	0	1
		(22)	(0)	(11)	(0)	(54)	(0)	(0)	(0)	(17)	(17)	(0)	(0)	(50)	(25)	(0)	(8)	(50)	(25)	(0)	(8)
	tubular necrosis	0	1	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	1	0	0
		(0)	(11)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(8)	(0)	(0)	(8)	(8)	(0)	(0)	(8)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 27

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Urinary system)																		
kidney			< 9>				<13>				<12>				<12>			
	mineralization:cortico-medullary junction		0 (0)	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 (8)	0 (0)	0 (0)
	mineralization:papilla		1 (11)	0 (0)	0 (0)	0 (0)	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:pelvis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	dilated pelvis		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
urin bladd			< 9>				<13>				<12>				<12>			
	metastasis:uterus tumor		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(Endocrine system)																		
pituitary			< 9>				<13>				<12>				<12>			
	angiectasis		0 (0)	1 (11)	0 (0)	0 (0)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 28

Organ	Findings	Group Name No. of Animals on Study Grade	Control 9				5 ppm 13				20 ppm 12				80 ppm 12			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
pituitary			< 9>				<13>				<12>				<12>			
	cyst		1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	hyperplasia		1 (11)	3 (33)	0 (0)	0 (0)	2 (15)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	Rathke pouch		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
thyroid			< 9>				<13>				<12>				<12>			
	ultimobranchial body remanet		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	C-cell hyperplasia		1 (11)	0 (0)	0 (0)	0 (0)	3 (23)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)
adrenal			< 9>				<13>				<12>				<12>			
	fatty change		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 29

Organ	Findings	Group Name No. of Animals on Study Grade	Control 9				5 ppm 13				20 ppm 12				80 ppm 12			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
adrenal			< 9>				<13>				<12>				<12>			
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(Reproductive system)																		
ovary			< 9>				<13>				<12>				<12>			
	cyst		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
uterus			< 9>				<13>				<12>				<12>			
	hyperplasia: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 (8)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	cystic endometrial hyperplasia		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 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 : 30

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Nervous system)																		
brain			< 9>				<13>				<12>				<12>			
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	metastasis:pituitary tumor		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)
spinal cord			< 9>				<13>				<12>				<12>			
	hemorrhage		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(Special sense organs/appendage)																		
eye			< 9>				<13>				<12>				<12>			
	cataract		0 (0)	1 (11)	2 (22)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	retinal atrophy		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 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 : 31

		Group Name	Control				5 ppm				20 ppm				80 ppm				
		No. of Animals on Study	9				13				12				12				
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
[Special sense organs/appendage]																			
eye	keratitis		< 9>				<13>				<12>				<12>				
		0 (0)	0 (0)	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 (8)	1 (8)	1 (8)	0 (0)
	iritis		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)
Harder gl	degeneration		< 9>				<13>				<12>				<12>				
		1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	lymphocytic infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
			leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	2 (15)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
nasolacr d	inflammation		< 9>				<13>				<12>				<12>				
		0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
[Musculoskeletal system]																			
muscle	leukemic cell infiltration		< 9>				<13>				<12>				<12>				
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 32

		Group Name	Control				5 ppm				20 ppm				80 ppm				
		No. of Animals on Study	9				13				12				12				
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
(Musculoskeletal system)																			
bone	osteosclerosis		< 9>				<13>				<12>				<12>				
		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
(Body cavities)																			
mediastinum	inflammation		< 9>				<13>				<12>				<12>				
		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	leukemic cell infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
peritoneum	inflammation		< 9>				<13>				<12>				<12>				
		0 (0)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
		leukemic cell infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		metastasis:uterus tumor	0 (0)	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 33

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	9				13				12				12			
Organ_____	Findings_____	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<hr/>																		
[Body cavities]																		
peritoneum	metastasis:kidney tumor		< 9>				<13>				<12>				<12>			
			0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(0)
retroperit	metastasis:liver tumor		< 9>				<13>				<12>				<12>			
			0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			(0)	(11)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

(HPT150)

BAIS5

TABLE L6

HISTOPATHOLOGICAL FINDINGS :
NON-NEOPLASTIC LESIONS : FEMALE
SACRIFICED ANIMALS

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 16

Organ_____	Findings_____	Group Name No. of Animals on Study Grade	Control 41				5 ppm 37				20 ppm 38				80 ppm 38			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
[Integumentary system/appandage]																		
skin/app			<41>				<37>				<38>				<38>			
	inflammation		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)
	fibrosis		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)
	scab		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)
	epidermal cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)
[Respiratory system]																		
nasal cavit			<41>				<37>				<38>				<38>			
	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)	0 (0)	1 (3)	0 (0)	0 (0)
	leukemic cell infiltration		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	eosinophilic change:olfactory epithelium		8 (20)	31 (76)	2 (5)	0 (0)	3 (8)	31 (84)	3 (8)	0 (0)	2 (5)	32 (84)	4 (11)	0 (0)	5 (13)	32 (84)	1 (3)	0 (0)

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 17

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		41				37				38				38			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
nasal cavit		<41>				<37>				<38>				<38>			
	eosinophilic change:respiratory epithelium	31 (76)	0 (0)	0 (0)	0 (0)	32 (86)	0 (0)	0 (0)	0 (0)	34 (89)	0 (0)	0 (0)	0 (0)	31 (82)	0 (0)	0 (0)	0 (0)
	inflammation:foreign body	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)
	inflammation:respiratory epithelium	4 (10)	0 (0)	0 (0)	0 (0)	7 (19)	0 (0)	0 (0)	0 (0)	7 (18)	0 (0)	0 (0)	0 (0)	15 (39)	0 (0)	0 (0)	0 ** (0)
	inflammation:olfactory epithelium	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 metaplasia:olfactory epithelium	3 (7)	0 (0)	0 (0)	0 (0)	5 (14)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)
	respiratory metaplasia:gland	2 (5)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)
	squamous cell metaplasia:respiratory epithelium	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	8 (21)	0 (0)	0 (0)	0 ** (0)
	hyperplasia:transitional 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)	4 (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 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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 18

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		41				37				38				38			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																	
nasal cavit		<41>				<37>				<38>				<38>			
	atrophy: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)	(3)	(0)	(0)	(0)
		<41>				<37>				<38>				<38>			
	vacuolic change:olfactory epithelium	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)
larynx		<41>				<37>				<38>				<38>			
	inflammation	3	0	0	0	1	1	0	0	1	0	0	0	2	0	0	0
		(7)	(0)	(0)	(0)	(3)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
lung		<41>				<37>				<38>				<38>			
	inflammatory infiltration	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(3)	(0)	(0)	(0)
		<41>				<37>				<38>				<38>			
	leukemic cell infiltration	3	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
		(7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
		<41>				<37>				<38>				<38>			
	metastasis:uterus tumor	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)
		<41>				<37>				<38>				<38>			
	accumulation of foamy cells	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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				Control				5 ppm				20 ppm				80 ppm			
		Grade				41				37				38				38			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Respiratory system)																					
lung		<41>				<37>				<38>				<38>				<38>			
	bronchiolar-alveolar cell hyperplasia	1 (2)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)
(Hematopoietic system)																					
bone marrow		<41>				<37>				<38>				<38>				<38>			
	granulation	11 (27)	1 (2)	0 (0)	0 (0)	10 (27)	4 (11)	0 (0)	0 (0)	11 (29)	3 (8)	1 (3)	0 (0)	11 (29)	4 (11)	0 (0)	0 (0)	11 (29)	4 (11)	0 (0)	0 (0)
	leukemic cell 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)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	increased hematopoiesis	4 (10)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)
lymph node		<41>				<37>				<38>				<38>				<38>			
	lymphadenitis	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)
spleen		<41>				<37>				<38>				<38>				<38>			
	congestion	1 (2)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 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				Control				5 ppm				20 ppm				80 ppm			
		Grade				41				37				38				38			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Hematopoietic system)																					
spleen		<41>				<37>				<38>				<38>				<38>			
	deposit of hemosiderin	13 (32)	21 (51)	0 (0)	0 (0)	15 (41)	16 (43)	0 (0)	0 (0)	15 (39)	18 (47)	0 (0)	0 (0)	12 (32)	19 (50)	0 (0)	0 (0)	12 (32)	19 (50)	0 (0)	0 (0)
	extramedullary hematopoiesis	7 (17)	2 (5)	0 (0)	0 (0)	8 (22)	2 (5)	0 (0)	0 (0)	7 (18)	3 (8)	0 (0)	0 (0)	5 (13)	1 (3)	0 (0)	0 (0)	5 (13)	1 (3)	0 (0)	0 (0)
(Circulatory system)																					
heart		<41>				<37>				<38>				<38>				<38>			
	inflammatory infiltration	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	lymphocytic 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)	0 (0)	0 (0)	0 (0)	0 (0)
	leukemic cell 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)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)
	metastasis:pituitary tumor	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)
	myocardial fibrosis	21 (51)	1 (2)	0 (0)	0 (0)	19 (51)	0 (0)	0 (0)	0 (0)	18 (47)	0 (0)	0 (0)	0 (0)	17 (45)	0 (0)	0 (0)	0 (0)	17 (45)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 21

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	41				37				38				38			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Circulatory system)																		
heart			<41>				<37>				<38>				<38>			
	subendocardial fibrosis		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)
(Digestive system)																		
oral cavity			<41>				<37>				<38>				<38>			
	inflammation		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)
	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)	0 (0)	1 (3)	0 (0)	0 (0)
tongue			<41>				<37>				<38>				<38>			
	inflammatory infiltration		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	leukemic cell 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)	1 (3)	0 (0)	0 (0)	0 (0)
	epidermal cyst		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 22

Organ	Findings	Control				5 ppm				20 ppm				80 ppm			
		41				37				38				38			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																	
tongue	arteritis	<41>				<37>				<38>				<38>			
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
stomach	necrosis:focal	<41>				<37>				<38>				<38>			
		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)
	ulcer:forestomach	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	inflammation:forestomach	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)
	squamous cell hyperplasia:forestomach	1	1	1	0	1	0	0	0	0	0	0	0	1	1	0	0
		(2)	(2)	(2)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(3)	(0)	(0)
small intes	inflammatory infiltration	<41>				<37>				<38>				<38>			
		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)
liver	herniation	<41>				<37>				<38>				<38>			
		9	0	0	0	10	0	0	0	9	0	0	0	5	0	0	0
		(22)	(0)	(0)	(0)	(27)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(13)	(0)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 23

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	41				37				38				38			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
liver			<41>				<37>				<38>				<38>			
	necrosis:central		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)
	necrosis:focal		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)
	fatty change:peripheral		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	lymphocytic infiltration		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)
	granulation		17 (41)	3 (7)	0 (0)	0 (0)	9 (24)	5 (14)	0 (0)	0 (0)	19 (50)	5 (13)	1 (3)	0 (0)	14 (37)	5 (13)	1 (3)	0 (0)
	leukemic cell infiltration		4 (10)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	5 (13)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	0 (0)
	metastasis:uterus tumor		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)
	clear cell focus		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 24

Organ	Findings	Group Name No. of Animals on Study				Control				5 ppm				20 ppm				80 ppm			
		Grade				41				37				38				38			
		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																					
liver		<41>				<37>				<38>				<38>				<38>			
	acidophilic cell focus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	basophilic cell focus	25	5	0	0	23	1	0	0	19	2	0	0	16	3	0	0	16	3	0	0
		(61)	(12)	(0)	(0)	(62)	(3)	(0)	(0)	(50)	(5)	(0)	(0)	(42)	(8)	(0)	(0)	(42)	(8)	(0)	(0)
	mixed 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)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
pancreas	bile duct hyperplasia	17	2	0	0	13	2	0	0	9	4	0	0	18	3	0	0	18	3	0	0
		(41)	(5)	(0)	(0)	(35)	(5)	(0)	(0)	(24)	(11)	(0)	(0)	(47)	(8)	(0)	(0)	(47)	(8)	(0)	(0)
	cholangiofibrosis	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	3	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)
	biliary cyst	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	focal fatty change	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(3)	(0)	(0)	(0)
pancreas		<41>				<37>				<38>				<38>				<38>			
	atrophy	6	0	0	0	3	4	0	0	6	0	0	0	2	1	0	0	5	3	0	0
		(15)	(0)	(0)	(0)	(8)	(11)	(0)	(0)	(16)	(0)	(0)	(0)	(5)	(3)	(0)	(0)	(5)	(3)	(0)	(0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 25

Organ_____	Findings_____	Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	41				37				38				38			
		Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
(Digestive system)																		
pancreas			<41>				<37>				<38>				<38>			
	islet cell hyperplasia		0 (0)	1 (2)	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)
(Urinary system)																		
kidney			<41>				<37>				<38>				<38>			
	scar		0 (0)	1 (2)	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)
	chronic nephropathy		27 (66)	9 (22)	2 (5)	0 (0)	22 (59)	8 (22)	3 (8)	0 (0)	30 (79)	4 (11)	4 (11)	0 (0)	28 (74)	5 (13)	0 (0)	0 (0)
	mineralization:pelvis		0 (0)	1 (2)	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)
	atypical tubule hyperplasia		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)
urin bladd			<41>				<37>				<38>				<38>			
	simple hyperplasia:transitional epithelium		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 26

Organ	Findings	Group Name No. of Animals on Study Grade	Control				5 ppm				20 ppm				80 ppm			
			1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)	1+ (%)	2+ (%)	3+ (%)	4+ (%)
(Endocrine system)																		
pituitary			<41>				<37>				<38>				<38>			
	angiectasis		2 (5)	1 (2)	0 (0)	0 (0)	2 (5)	1 (3)	0 (0)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	cyst		5 (12)	2 (5)	0 (0)	0 (0)	3 (8)	2 (5)	0 (0)	0 (0)	6 (16)	1 (3)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)
	hyperplasia		7 (17)	7 (17)	0 (0)	0 (0)	4 (11)	12 (32)	0 (0)	0 (0)	6 (16)	6 (16)	0 (0)	0 (0)	5 (13)	9 (24)	0 (0)	0 (0)
	Rathke pouch		1 (2)	0 (0)	0 (0)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
thyroid			<41>				<37>				<38>				<38>			
	ultimobranchial body remanet		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)
	C-cell hyperplasia		15 (37)	2 (5)	0 (0)	0 (0)	12 (32)	5 (14)	0 (0)	0 (0)	11 (29)	3 (8)	0 (0)	0 (0)	17 (45)	1 (3)	0 (0)	0 (0)
adrenal			<41>				<37>				<38>				<38>			
	hyperplasia:medulla		1 (2)	1 (2)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 27

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	41				37				38				38			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
(Endocrine system)																		
adrenal	focal fatty change:cortex		<41>				<37>				<38>				<38>			
			2	1	0	0	6	0	0	0	2	1	0	0	2	2	0	0
			(5)	(2)	(0)	(0)	(16)	(0)	(0)	(0)	(5)	(3)	(0)	(0)	(5)	(5)	(0)	(0)
(Reproductive system)																		
ovary	cyst		<41>				<37>				<38>				<38>			
			0	2	0	0	1	1	0	0	1	0	0	0	2	1	0	0
			(0)	(5)	(0)	(0)	(3)	(3)	(0)	(0)	(3)	(0)	(0)	(0)	(5)	(3)	(0)	(0)
uterus	cystic endometrial hyperplasia		<41>				<37>				<38>				<38>			
			1	2	0	0	3	0	0	0	2	0	0	0	2	0	0	0
			(2)	(5)	(0)	(0)	(8)	(0)	(0)	(0)	(5)	(0)	(0)	(0)	(5)	(0)	(0)	(0)
(Nervous system)																		
spinal cord	gliosis		<41>				<37>				<38>				<38>			
			0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
			(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(Special sense organs/appendage)																		
eye	cataract		<41>				<37>				<38>				<38>			
			1	0	3	0	2	1	2	0	1	2	2	0	0	1	4	0
			(2)	(0)	(7)	(0)	(5)	(3)	(5)	(0)	(3)	(5)	(5)	(0)	(0)	(3)	(11)	(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. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 28

		Group Name	Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study	41				37				38				38			
Organ	Findings	Grade	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
[Special sense organs/appendage]																		
eye			<41>				<37>				<38>				<38>			
	retinal atrophy		3 (7)	2 (5)	3 (7)	0 (0)	0 (0)	1 (3)	3 (8)	0 (0)	1 (3)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)	5 (13)	0 (0)
	keratitis		1 (2)	1 (2)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (5)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)
	mineralization:cornea		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)
Harder gl			<41>				<37>				<38>				<38>			
	lymphocytic infiltration		2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	3 (8)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)
	leukemic cell infiltration		3 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	2 (5)	1 (3)	0 (0)	0 (0)
nasolacr d			<41>				<37>				<38>				<38>			
	inflammation		1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)
[Musculoskeletal system]																		
bone			<41>				<37>				<38>				<38>			
	osteosclerosis		1 (2)	0 (0)	0 (0)	0 (0)	2 (5)	1 (3)	0 (0)	0 (0)	1 (3)	3 (8)	3 (8)	0 (0)	3 (8)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 29

Organ	Findings	Group Name		Control				5 ppm				20 ppm				80 ppm			
		No. of Animals on Study		41				37				38				38			
		Grade		1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+	1+	2+	3+	4+
				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)

[Body cavities]

peritoneum		<41>				<37>				<38>				<38>				<38>			
metastasis:uterus tumor		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(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 M1

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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	5 ppm	20 ppm	80 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	0	1	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		1	0	2	2
	NO. OF ANIMALS WITH TUMORS		0	0	2	2
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	1	2
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	0	1	0
	NO. OF BENIGN TUMORS		0	0	1	0
	NO. OF MALIGNANT TUMORS		0	0	2	2
	NO. OF TOTAL TUMORS		0	0	3	2
79 - 104	NO. OF EXAMINED ANIMALS		11	8	9	14
	NO. OF ANIMALS WITH TUMORS		10	8	9	14
	NO. OF ANIMALS WITH SINGLE TUMORS		7	1	4	5
	NO. OF ANIMALS WITH MULTIPLE TUMORS		3	7	5	9
	NO. OF BENIGN TUMORS		11	16	12	18
	NO. OF MALIGNANT TUMORS		3	8	5	9
	NO. OF TOTAL TUMORS		14	24	17	27
105 - 105	NO. OF EXAMINED ANIMALS		38	42	38	34
	NO. OF ANIMALS WITH TUMORS		37	41	38	34
	NO. OF ANIMALS WITH SINGLE TUMORS		8	18	9	12
	NO. OF ANIMALS WITH MULTIPLE TUMORS		29	23	29	22
	NO. OF BENIGN TUMORS		72	80	82	62
	NO. OF MALIGNANT TUMORS		8	6	8	8
	NO. OF TOTAL TUMORS		80	86	90	70

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Time-related Weeks	Items	Group Name	Control	5 ppm	20 ppm	80 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		47	49	49	50
	NO. OF ANIMALS WITH SINGLE TUMORS		15	19	14	19
	NO. OF ANIMALS WITH MULTIPLE TUMORS		32	30	35	31
	NO. OF BENIGN TUMORS		83	96	95	80
	NO. OF MALIGNANT TUMORS		11	14	15	19
	NO. OF TOTAL TUMORS		94	110	110	99
(HPT070)						BAIS5

TABLE M2

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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	5 ppm	20 ppm	80 ppm
0 - 52	NO. OF EXAMINED ANIMALS		0	1	0	0
	NO. OF ANIMALS WITH TUMORS		0	1	0	0
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	1	0	0
	NO. OF BENIGN TUMORS		0	2	0	0
	NO. OF MALIGNANT TUMORS		0	0	0	0
	NO. OF TOTAL TUMORS		0	2	0	0
53 - 78	NO. OF EXAMINED ANIMALS		1	3	3	0
	NO. OF ANIMALS WITH TUMORS		1	3	3	0
	NO. OF ANIMALS WITH SINGLE TUMORS		1	2	2	0
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	1	1	0
	NO. OF BENIGN TUMORS		0	1	2	0
	NO. OF MALIGNANT TUMORS		1	3	2	0
	NO. OF TOTAL TUMORS		1	4	4	0
79 - 104	NO. OF EXAMINED ANIMALS		8	9	9	12
	NO. OF ANIMALS WITH TUMORS		5	9	8	11
	NO. OF ANIMALS WITH SINGLE TUMORS		1	6	4	6
	NO. OF ANIMALS WITH MULTIPLE TUMORS		4	3	4	5
	NO. OF BENIGN TUMORS		8	6	8	14
	NO. OF MALIGNANT TUMORS		3	6	5	4
	NO. OF TOTAL TUMORS		11	12	13	18
105 - 105	NO. OF EXAMINED ANIMALS		41	37	38	38
	NO. OF ANIMALS WITH TUMORS		28	27	26	31
	NO. OF ANIMALS WITH SINGLE TUMORS		12	17	17	15
	NO. OF ANIMALS WITH MULTIPLE TUMORS		16	10	9	16
	NO. OF BENIGN TUMORS		42	34	27	41
	NO. OF MALIGNANT TUMORS		10	6	9	12
	NO. OF TOTAL TUMORS		52	40	36	53

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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	5 ppm	20 ppm	80 ppm
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50
	NO. OF ANIMALS WITH TUMORS		34	40	37	42
	NO. OF ANIMALS WITH SINGLE TUMORS		14	25	23	21
	NO. OF ANIMALS WITH MULTIPLE TUMORS		20	15	14	21
	NO. OF BENIGN TUMORS		50	43	37	55
	NO. OF MALIGNANT TUMORS		14	15	16	16
	NO. OF TOTAL TUMORS		64	58	53	71
(HPT070)						BAIS5

TABLE N1

HISTOPATHOLOGICAL FINDINGS :
NEOPLASTIC LESIONS : MALE

STUDY NO. : 0731
 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	5 ppm 50	20 ppm 50	80 ppm 50
(Integumentary system/appandage)						
skin/app		<50>	<50>	<50>	<50>	
	squamous cell papilloma	1 (2%)	0 (0%)	1 (2%)	0 (0%)	
	trichoepithelioma	1 (2%)	0 (0%)	1 (2%)	0 (0%)	
	basal cell epithelioma	0 (0%)	1 (2%)	0 (0%)	0 (0%)	
	keratoacanthoma	2 (4%)	3 (6%)	3 (6%)	1 (2%)	
	sebaceous adenoma	0 (0%)	0 (0%)	1 (2%)	0 (0%)	
	squamous cell carcinoma	0 (0%)	0 (0%)	0 (0%)	1 (2%)	
subcutis		<50>	<50>	<50>	<50>	
	fibroma	4 (8%)	2 (4%)	4 (8%)	5 (10%)	
	lipoma	0 (0%)	1 (2%)	1 (2%)	0 (0%)	
	leiomyoma	0 (0%)	0 (0%)	0 (0%)	1 (2%)	
	fibrosarcoma	1 (2%)	0 (0%)	1 (2%)	0 (0%)	
	liposarcoma	0 (0%)	0 (0%)	0 (0%)	1 (2%)	
	leiomyosarcoma	2 (4%)	0 (0%)	0 (0%)	0 (0%)	
(Respiratory system)						
lung		<50>	<50>	<50>	<50>	
	bronchiolar-alveolar adenoma	5 (10%)	4 (8%)	8 (16%)	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 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	5 ppm 50	20 ppm 50	80 ppm 50
(Respiratory system)						
lung	bronchiolar-alveolar carcinoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
(Hematopoietic system)						
spleen	histiocytic sarcoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	mononuclear cell leukemia		6 (12%)	6 (12%)	4 (8%)	10 (20%)
	hemangiosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
(Digestive system)						
oral cavity	squamous cell papilloma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
stomach	squamous cell papilloma		<50> 0 (0%)	<50> 2 (4%)	<50> 1 (2%)	<50> 0 (0%)
	squamous cell carcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
large intes	adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
liver	hepatocellular adenoma		<50> 1 (2%)	<50> 1 (2%)	<50> 2 (4%)	<50> 1 (2%)
	hepatocellular carcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
pancreas	islet cell adenoma		<50> 5 (10%)	<50> 5 (10%)	<50> 4 (8%)	<50> 5 (10%)

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

STUDY NO. : 0731
 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	5 ppm 50	20 ppm 50	80 ppm 50
(Digestive system)						
pancreas	islet cell adenocarcinoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
(Urinary system)						
urin bladd	transitional cell papilloma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 1 (2%)
(Endocrine system)						
pituitary	adenoma		<50> 8 (16%)	<50> 11 (22%)	<50> 17 (34%)	<50> 17 (34%)
	adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	1 (2%)
thyroid	C-cell adenoma		<50> 9 (18%)	<50> 7 (14%)	<50> 12 (24%)	<50> 4 (8%)
	follicular adenoma		1 (2%)	2 (4%)	0 (0%)	0 (0%)
	C-cell carcinoma		0 (0%)	0 (0%)	2 (4%)	1 (2%)
parathyroid	adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
adrenal	pheochromocytoma		<50> 5 (10%)	<50> 10 (20%)	<50> 4 (8%)	<50> 8 (16%)
	pheochromocytoma:malignant		0 (0%)	2 (4%)	0 (0%)	1 (2%)
(Reproductive system)						
testis	interstitial cell tumor		<50> 37 (74%)	<50> 44 (88%)	<50> 34 (68%)	<50> 33 (66%)

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [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	5 ppm 50	20 ppm 50	80 ppm 50
(Reproductive system)						
mammary gl	fibroadenoma		<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)	<50> 1 (2%)
	adenocarcinoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
(Nervous system)						
brain	glioma		<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)	<50> 1 (2%)
(Special sense organs/appendage)						
eye	schwannoma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
Zymal gl	Zymal gland tumor:benign		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	Zymal gland tumor:malignant		0 (0%)	0 (0%)	2 (4%)	0 (0%)
(Musculoskeletal system)						
bone	osteosarcoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
(Body cavities)						
peritoneum	mesothelioma		<50> 0 (0%)	<50> 1 (2%)	<50> 2 (4%)	<50> 0 (0%)
	histiocytic sarcoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
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	5 ppm 50	20 ppm 50	80 ppm 50
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(Body cavities)

retroperit	neuroendocrine cell tumor:malignant		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
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< a > a : Number of animals examined at the site
b (c) b : Number of animals with neoplasm c : b / a * 100

(HPT085)

BA1S5

TABLE N2

**HISTOPATHOLOGICAL FINDINGS :
NEOPLASTIC LESIONS : FEMALE**

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [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	5 ppm 50	20 ppm 50	80 ppm 50
(Integumentary system/appandage)						
skin/app			<50>	<50>	<50>	<50>
	keratoacanthoma		0 (0%)	1 (2%)	0 (0%)	1 (2%)
	squamous cell carcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
	trichoepithelioma:malignant		0 (0%)	0 (0%)	0 (0%)	1 (2%)
subcutis			<50>	<50>	<50>	<50>
	fibroma		1 (2%)	1 (2%)	0 (0%)	2 (4%)
	fibrosarcoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
(Respiratory system)						
lung			<50>	<50>	<50>	<50>
	bronchiolar-alveolar adenoma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
(Hematopoietic system)						
spleen	mononuclear cell leukemia		<50> 6 (12%)	<50> 6 (12%)	<50> 9 (18%)	<50> 5 (10%)
(Digestive system)						
oral cavity			<50>	<50>	<50>	<50>
	squamous cell papilloma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
tongue			<50>	<50>	<50>	<50>
	squamous cell papilloma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
stomach			<50>	<50>	<50>	<50>
	squamous cell papilloma		2 (4%)	0 (0%)	2 (4%)	0 (0%)
<div> <div>< a ></div> <div>a : Number of animals examined at the site</div> </div> <div> <div>b (c)</div> <div>b : Number of animals with neoplasm</div> </div> <div> <div>c : b / a * 100</div> </div>						

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [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	5 ppm 50	20 ppm 50	80 ppm 50
(Digestive system)						
small intes	fibrosarcoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
large intes	fibrosarcoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
liver	hepatocellular adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
	hepatocellular carcinoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
pancreas	islet cell adenoma		<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)	<50> 2 (4%)
	islet cell adenocarcinoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
(Urinary system)						
kidney	renal cell carcinoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
	nephroblastoma		<50> 0 (0%)	<50> 1 (2%)	<50> 1 (2%)	<50> 0 (0%)
urin bladd	transitional cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)
(Endocrine system)						
pituitary	adenoma		<50> 17 (34%)	<50> 15 (30%)	<50> 16 (32%)	<50> 15 (30%)
	adenocarcinoma		<50> 2 (4%)	<50> 2 (4%)	<50> 1 (2%)	<50> 2 (4%)
< a > a : Number of animals examined at the site b (c) b : Number of animals with neoplasm c : b / a * 100						

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
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	5 ppm 50	20 ppm 50	80 ppm 50
(Endocrine system)						
thyroid			<50>	<50>	<50>	<50>
	C-cell adenoma		6 (12%)	10 (20%)	3 (6%)	7 (14%)
	follicular adenoma		1 (2%)	0 (0%)	1 (2%)	0 (0%)
	C-cell carcinoma		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	follicular adenocarcinoma		1 (2%)	0 (0%)	0 (0%)	0 (0%)
adrenal			<50>	<50>	<50>	<50>
	pheochromocytoma		4 (8%)	1 (2%)	0 (0%)	2 (4%)
	cortical adenoma		1 (2%)	2 (4%)	0 (0%)	0 (0%)
	pheochromocytoma:malignant		0 (0%)	0 (0%)	1 (2%)	0 (0%)
(Reproductive system)						
ovary			<50>	<50>	<50>	<50>
	adenocarcinoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
uterus			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	1 (2%)	0 (0%)	1 (2%)
	endometrial stromal polyp		8 (16%)	4 (8%)	7 (14%)	9 (18%)
	adenocarcinoma		0 (0%)	1 (2%)	0 (0%)	2 (4%)
	endometrial stromal sarcoma		1 (2%)	1 (2%)	1 (2%)	2 (4%)

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

(HPT085)

BAIS5

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCr1j]
 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	5 ppm 50	20 ppm 50	80 ppm 50
(Reproductive system)						
vagina			<50>	<50>	<50>	<50>
	squamous cell papilloma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
mammary gl			<50>	<50>	<50>	<50>
	adenoma		0 (0%)	0 (0%)	1 (2%)	1 (2%)
	fibroadenoma		5 (10%)	3 (6%)	5 (10%)	10 (20%)
	adenocarcinoma		1 (2%)	0 (0%)	1 (2%)	2 (4%)
prep/cli gl			<50>	<50>	<50>	<50>
	adenoma		1 (2%)	1 (2%)	0 (0%)	1 (2%)
(Nervous system)						
brain			<50>	<50>	<50>	<50>
	meningioma:benign		0 (0%)	1 (2%)	0 (0%)	0 (0%)
	glioma		0 (0%)	1 (2%)	1 (2%)	0 (0%)
(Body cavities)						
retroperit			<50>	<50>	<50>	<50>
	neuroendocrine cell tumor:benign		0 (0%)	0 (0%)	0 (0%)	1 (2%)

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

(HPT085)

BA1S5

TABLE O1

NEOPLASTIC LESIONS-INCIDENCE
AND STATISTICAL ANALYSIS : MALE

STUDY No. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrI]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 1

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : skin/appendage TUMOR : keratoacanthoma				
Tumor rate				
Overall rates (a)	2/50 (4.0)	3/50 (6.0)	3/50 (6.0)	1/50 (2.0)
Adjusted rates (b)	5.26	7.14	7.89	2.78
Terminal rates (c)	2/38 (5.3)	3/42 (7.1)	3/38 (7.9)	0/34 (0.0)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.7654			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.3849			
Fisher Exact test (e)		P = 0.5000	P = 0.5000	P = 0.5000
SITE : subcutis TUMOR : fibroma				
Tumor rate				
Overall rates (a)	4/50 (8.0)	2/50 (4.0)	4/50 (8.0)	5/50 (10.0)
Adjusted rates (b)	10.53	4.76	10.53	11.76
Terminal rates (c)	4/38 (10.5)	2/42 (4.8)	4/38 (10.5)	4/34 (11.8)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1522			
Prevalence method (d)	P = 0.2567			
Combined analysis (d)	P = 0.1419			
Cochran-Armitage test (e)	P = 0.4178			
Fisher Exact test (e)		P = 0.3389	P = 0.6425	P = 0.5000
SITE : subcutis TUMOR : fibroma, fibrosarcoma				
Tumor rate				
Overall rates (a)	5/50 (10.0)	2/50 (4.0)	5/50 (10.0)	5/50 (10.0)
Adjusted rates (b)	13.16	4.76	10.53	11.76
Terminal rates (c)	5/38 (13.2)	2/42 (4.8)	4/38 (10.5)	4/34 (11.8)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1664			
Prevalence method (d)	P = 0.3324			
Combined analysis (d)	P = 0.2168			
Cochran-Armitage test (e)	P = 0.6123			
Fisher Exact test (e)		P = 0.2180	P = 0.6297	P = 0.6297

STUDY No. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 2

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : lung TUMOR : bronchiolar-alveolar adenoma				
Tumor rate				
Overall rates (a)	5/50 (10.0)	4/50 (8.0)	8/50 (16.0)	3/50 (6.0)
Adjusted rates (b)	12.50	9.52	21.05	8.82
Terminal rates (c)	4/38 (10.5)	4/42 (9.5)	8/38 (21.1)	3/34 (8.8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.7100			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.4378			
Fisher Exact test (e)		P = 0.5000	P = 0.2768	P = 0.3575
SITE : lung TUMOR : bronchiolar-alveolar adenoma, bronchiolar-alveolar carcinoma				
Tumor rate				
Overall rates (a)	5/50 (10.0)	4/50 (8.0)	8/50 (16.0)	3/50 (6.0)
Adjusted rates (b)	12.50	9.52	21.05	8.82
Terminal rates (c)	4/38 (10.5)	4/42 (9.5)	8/38 (21.1)	3/34 (8.8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.7100			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.4378			
Fisher Exact test (e)		P = 0.5000	P = 0.2768	P = 0.3575
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates (a)	6/50 (12.0)	6/50 (12.0)	4/50 (8.0)	10/50 (20.0)
Adjusted rates (b)	7.89	4.76	7.89	8.82
Terminal rates (c)	3/38 (7.9)	2/42 (4.8)	3/38 (7.9)	3/34 (8.8)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.0473*			
Prevalence method (d)	P = 0.3194			
Combined analysis (d)	P = 0.0563			
Cochran-Armitage test (e)	P = 0.1337			
Fisher Exact test (e)		P = 0.6202	P = 0.3703	P = 0.2070

STUDY No. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 SEX : MALE

NEOPLASTIC LESIONS—INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 3

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : pancreas TUMOR : islet cell adenoma				
Tumor rate				
Overall rates (a)	5/50 (10. 0)	5/50 (10. 0)	4/50 (8. 0)	5/50 (10. 0)
Adjusted rates (b)	10. 87	10. 00	9. 09	13. 89
Terminal rates (c)	4/38 (10. 5)	4/42 (9. 5)	3/38 (7. 9)	4/34 (11. 8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 4275			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 9623			
Fisher Exact test (e)		P = 0. 6297	P = 0. 5000	P = 0. 6297
SITE : pancreas TUMOR : islet cell adenoma, islet cell adenocarcinoma				
Tumor rate				
Overall rates (a)	5/50 (10. 0)	6/50 (12. 0)	4/50 (8. 0)	5/50 (10. 0)
Adjusted rates (b)	10. 87	12. 00	9. 09	13. 89
Terminal rates (c)	4/38 (10. 5)	4/42 (9. 5)	3/38 (7. 9)	4/34 (11. 8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 4907			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 9117			
Fisher Exact test (e)		P = 0. 5000	P = 0. 5000	P = 0. 6297
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates (a)	8/50 (16. 0)	11/50 (22. 0)	17/50 (34. 0)	17/50 (34. 0)
Adjusted rates (b)	13. 16	24. 44	36. 59	38. 24
Terminal rates (c)	5/38 (13. 2)	9/42 (21. 4)	13/38 (34. 2)	13/34 (38. 2)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 1992			
Prevalence method (d)	P = 0. 0385*			
Combined analysis (d)	P = 0. 0258*			
Cochran-Armitage test (e)	P = 0. 0676			
Fisher Exact test (e)		P = 0. 3055	P = 0. 0317*	P = 0. 0317*

STUDY No. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 4

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate				
Overall rates (a)	8/50 (16.0)	12/50 (24.0)	17/50 (34.0)	18/50 (36.0)
Adjusted rates (b)	13.16	26.67	36.59	38.24
Terminal rates (c)	5/38 (13.2)	10/42 (23.8)	13/38 (34.2)	13/34 (38.2)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1992			
Prevalence method (d)	P = 0.0275*			
Combined analysis (d)	P = 0.0187*			
Cochran-Armitage test (e)	P = 0.0491*			
Fisher Exact test (e)		P = 0.2270	P = 0.0317*	P = 0.0195*
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates (a)	9/50 (18.0)	7/50 (14.0)	12/50 (24.0)	4/50 (8.0)
Adjusted rates (b)	21.43	16.67	31.58	9.76
Terminal rates (c)	7/38 (18.4)	7/42 (16.7)	12/38 (31.6)	3/34 (8.8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.9034			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1384			
Fisher Exact test (e)		P = 0.3929	P = 0.3121	P = 0.1168
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates (a)	9/50 (18.0)	7/50 (14.0)	14/50 (28.0)	5/50 (10.0)
Adjusted rates (b)	21.43	16.67	34.21	10.00
Terminal rates (c)	7/38 (18.4)	7/42 (16.7)	13/38 (34.2)	3/34 (8.8)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1634			
Prevalence method (d)	P = 0.8988			
Combined analysis (d)	P = 0.8211			
Cochran-Armitage test (e)	P = 0.2345			
Fisher Exact test (e)		P = 0.3929	P = 0.1710	P = 0.1940

STUDY No. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 5

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates (a)	5/50 (10.0)	10/50 (20.0)	4/50 (8.0)	8/50 (16.0)
Adjusted rates (b)	13.16	21.28	8.51	19.05
Terminal rates (c)	5/38 (13.2)	6/42 (14.3)	2/38 (5.3)	6/34 (17.6)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.3032			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.6911			
Fisher Exact test (e)		P = 0.1312	P = 0.5000	P = 0.2768
SITE : adrenal gland TUMOR : pheochromocytoma, pheochromocytoma:malignant				
Tumor rate				
Overall rates (a)	5/50 (10.0)	12/50 (24.0)	4/50 (8.0)	9/50 (18.0)
Adjusted rates (b)	13.16	24.49	8.51	21.62
Terminal rates (c)	5/38 (13.2)	7/42 (16.7)	2/38 (5.3)	7/34 (20.6)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.2713			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.6526			
Fisher Exact test (e)		P = 0.0542	P = 0.5000	P = 0.1940

(HPT360A)

BAIS5

STUDY No. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 SEX : MALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 6

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : testis				
TUMOR : interstitial cell tumor				
Tumor rate				
Overall rates (a)	37/50 (74. 0)	44/50 (88. 0)	34/50 (68. 0)	33/50 (66. 0)
Adjusted rates (b)	89. 47	89. 36	84. 21	75. 00
Terminal rates (c)	34/38 (89. 5)	37/42 (88. 1)	32/38 (84. 2)	25/34 (73. 5)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0. 9245			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0. 0812			
Fisher Exact test (e)		P = 0. 0624	P = 0. 3299	P = 0. 2565

(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 out comes can not estimated or this P-value is beyond the estimated P-value.
 ----- : There is no data which should be statistical analysis.
 Significant difference ; * : $P \leq 0. 05$ ** : $P \leq 0. 01$
 N.C. :Statistical value cannot be calculated and was not significant.

TABLE O2

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

STUDY No. : 0731
 ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 7

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : spleen TUMOR : mononuclear cell leukemia				
Tumor rate				
Overall rates (a)	6/50 (12.0)	6/50 (12.0)	9/50 (18.0)	5/50 (10.0)
Adjusted rates (b)	12.20	2.70	15.79	13.16
Terminal rates (c)	5/41 (12.2)	1/37 (2.7)	6/38 (15.8)	5/38 (13.2)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.9585			
Prevalence method (d)	P = 0.2435			
Combined analysis (d)	P = 0.6593			
Cochran-Armitage test (e)	P = 0.6327			
Fisher Exact test (e)		P = 0.6202	P = 0.2883	P = 0.5000
SITE : pancreas TUMOR : islet cell adenoma, islet cell 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)	2.44	2.70	0.0	7.89
Terminal rates (c)	1/41 (2.4)	1/37 (2.7)	0/38 (0.0)	3/38 (7.9)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.0646			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.1062			
Fisher Exact test (e)		P = 0.7525	P = 0.5000	P = 0.3087
SITE : pituitary gland TUMOR : adenoma				
Tumor rate				
Overall rates (a)	17/50 (34.0)	15/50 (30.0)	16/50 (32.0)	15/50 (30.0)
Adjusted rates (b)	39.53	27.03	31.58	26.67
Terminal rates (c)	16/41 (39.0)	10/37 (27.0)	12/38 (31.6)	8/38 (21.1)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.2539			
Prevalence method (d)	P = 0.7762			
Combined analysis (d)	P = 0.6459			
Cochran-Armitage test (e)	P = 0.7792			
Fisher Exact test (e)		P = 0.4152	P = 0.5000	P = 0.4152

STUDY No. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 8

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate				
Overall rates (a)	19/50 (38.0)	17/50 (34.0)	17/50 (34.0)	17/50 (34.0)
Adjusted rates (b)	41.86	27.27	34.21	26.67
Terminal rates (c)	17/41 (41.5)	10/37 (27.0)	13/38 (34.2)	8/38 (21.1)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.2067			
Prevalence method (d)	P = 0.8010			
Combined analysis (d)	P = 0.6068			
Cochran-Armitage test (e)	P = 0.8072			
Fisher Exact test (e)		P = 0.4176	P = 0.4176	P = 0.4176
SITE : thyroid TUMOR : C-cell adenoma				
Tumor rate				
Overall rates (a)	6/50 (12.0)	10/50 (20.0)	3/50 (6.0)	7/50 (14.0)
Adjusted rates (b)	13.64	27.03	6.52	15.79
Terminal rates (c)	5/41 (12.2)	10/37 (27.0)	1/38 (2.6)	6/38 (15.8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.5811			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.9343			
Fisher Exact test (e)		P = 0.2070	P = 0.2435	P = 0.5000
SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma				
Tumor rate				
Overall rates (a)	6/50 (12.0)	11/50 (22.0)	3/50 (6.0)	7/50 (14.0)
Adjusted rates (b)	13.64	29.73	6.52	15.79
Terminal rates (c)	5/41 (12.2)	11/37 (29.7)	1/38 (2.6)	6/38 (15.8)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.6320			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.8267			
Fisher Exact test (e)		P = 0.1434	P = 0.2435	P = 0.5000

STUDY No. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 9

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : adrenal gland TUMOR : pheochromocytoma				
Tumor rate				
Overall rates (a)	4/50 (8.0)	1/50 (2.0)	0/50 (0.0)	2/50 (4.0)
Adjusted rates (b)	8.89	2.70	0.0	5.00
Terminal rates (c)	3/41 (7.3)	1/37 (2.7)	0/38 (0.0)	1/38 (2.6)
Statistical analysis				
Peto test				
Standard method (d)	P = -----			
Prevalence method (d)	P = 0.5883			
Combined analysis (d)	P = -----			
Cochran-Armitage test (e)	P = 0.8210			
Fisher Exact test (e)		P = 0.1811	P = 0.0587	P = 0.3389
SITE : adrenal gland TUMOR : pheochromocytoma, pheochromocytoma:malignant				
Tumor rate				
Overall rates (a)	4/50 (8.0)	1/50 (2.0)	1/50 (2.0)	2/50 (4.0)
Adjusted rates (b)	8.89	2.70	0.0	5.00
Terminal rates (c)	3/41 (7.3)	1/37 (2.7)	0/38 (0.0)	1/38 (2.6)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.3382			
Prevalence method (d)	P = 0.5894			
Combined analysis (d)	P = 0.6092			
Cochran-Armitage test (e)	P = 0.7773			
Fisher Exact test (e)		P = 0.1811	P = 0.1811	P = 0.3389
SITE : uterus TUMOR : endometrial stromal polyp				
Tumor rate				
Overall rates (a)	8/50 (16.0)	4/50 (8.0)	7/50 (14.0)	9/50 (18.0)
Adjusted rates (b)	19.51	8.00	18.42	21.05
Terminal rates (c)	8/41 (19.5)	1/37 (2.7)	7/38 (18.4)	8/38 (21.1)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.1557			
Prevalence method (d)	P = 0.2609			
Combined analysis (d)	P = 0.1694			
Cochran-Armitage test (e)	P = 0.3542			
Fisher Exact test (e)		P = 0.1783	P = 0.5000	P = 0.5000

STUDY No. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 10

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : mammary gland TUMOR : fibroadenoma				
Tumor rate				
Overall rates (a)	5/50 (10.0)	3/50 (6.0)	5/50 (10.0)	10/50 (20.0)
Adjusted rates (b)	9.76	8.11	11.11	21.05
Terminal rates (c)	4/41 (9.8)	3/37 (8.1)	3/38 (7.9)	8/38 (21.1)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.2723			
Prevalence method (d)	P = 0.0309*			
Combined analysis (d)	P = 0.0257*			
Cochran-Armitage test (e)	P = 0.0305*			
Fisher Exact test (e)		P = 0.3575	P = 0.6297	P = 0.1312
SITE : mammary gland TUMOR : adenoma, fibroadenoma				
Tumor rate				
Overall rates (a)	5/50 (10.0)	3/50 (6.0)	6/50 (12.0)	11/50 (22.0)
Adjusted rates (b)	9.76	8.11	13.33	23.68
Terminal rates (c)	4/41 (9.8)	3/37 (8.1)	4/38 (10.5)	9/38 (23.7)
Statistical analysis				
Peto test				
Standard method (d)	P = 0.2723			
Prevalence method (d)	P = 0.0173*			
Combined analysis (d)	P = 0.0146*			
Cochran-Armitage test (e)	P = 0.0162*			
Fisher Exact test (e)		P = 0.3575	P = 0.5000	P = 0.0857

(HPT360A)

BA155

STUDY No. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 SEX : FEMALE

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

PAGE : 11

Group Name	Control	5 ppm	20 ppm	80 ppm
SITE : mammary gland				
TUMOR : adenoma, fibroadenoma, adenocarcinoma				
Tumor rate				
Overall rates (a)	6/50 (12. 0)	3/50 (6. 0)	6/50 (12. 0)	12/50 (24. 0)
Adjusted rates (b)	12. 20	8. 11	13. 33	26. 32
Terminal rates (c)	5/41 (12. 2)	3/37 (8. 1)	4/38 (10. 5)	10/38 (26. 3)
Statistical analysis				
Peto test				
Standard method (d)	P = 0. 2723			
Prevalence method (d)	P = 0. 0132*			
Combined analysis (d)	P = 0. 0111*			
Cochran-Armitage test (e)	P = 0. 0122*			
Fisher Exact test (e)		P = 0. 2435	P = 0. 6202	P = 0. 0961

(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 out comes can not estimated or this P-value is beyond the estimated P-value.
 ----- : There is no data which should be statistical analysis.
 Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$
 N. C. : Statistical value cannot be calculated and was not significant.

TABLE P1

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

MALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 1

Group Name No. of Animals on Study		Control 50	5 ppm 50	20 ppm 50	80 ppm 50
Organ	Findings				
(Respiratory system)					
nasal cavit		<50> 0	<50> 1	<50> 0	<50> 0
	leukemic cell infiltration				
trachea		<50> 0	<50> 0	<50> 0	<50> 1
	leukemic cell infiltration				
lung		<50> 5	<50> 5	<50> 2	<50> 9
	leukemic cell infiltration				
	metastasis:thyroid tumor	0	0	1	1
	metastasis:subcutis tumor	1	0	0	0
	metastasis:spleen tumor	0	1	0	0
	metastasis:Zymbal gland tumor	0	0	1	0
(Hematopoietic system)					
bone marrow		<50> 3	<50> 3	<50> 1	<50> 3
	leukemic cell infiltration				
lymph node		<50> 1	<50> 1	<50> 0	<50> 3
	leukemic cell infiltration				
	metastasis:thyroid tumor	0	0	1	1
(Circulatory system)					
heart		<50> 0	<50> 1	<50> 0	<50> 4
	leukemic cell infiltration				
(Digestive system)					
tongue		<50> 0	<50> 0	<50> 0	<50> 1
	leukemic cell infiltration				

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 2

Group Name		Control	5 ppm	20 ppm	80 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
(Digestive system)					
stomach	leukemic cell infiltration	<50> 1	<50> 0	<50> 0	<50> 1
	metastasis:peritoneum tumor	0	0	1	0
small intes	leukemic cell infiltration	<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:peritoneum tumor	0	0	1	0
large intes	leukemic cell infiltration	<50> 1	<50> 0	<50> 0	<50> 0
	metastasis:peritoneum tumor	0	0	1	0
liver	leukemic cell infiltration	<50> 4	<50> 5	<50> 2	<50> 9
	metastasis:spleen tumor	0	1	0	0
pancreas	leukemic cell infiltration	<50> 1	<50> 0	<50> 0	<50> 1
	metastasis:peritoneum tumor	0	0	1	0
(Urinary system)					
kidney	leukemic cell infiltration	<50> 0	<50> 1	<50> 0	<50> 3
(Endocrine system)					
pituitary	leukemic cell infiltration	<50> 0	<50> 1	<50> 0	<50> 0

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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj[F344/DuCrIj]
 REPORT TYPE : A1
 SEX : MALE

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

PAGE : 3

Group Name		Control	5 ppm	20 ppm	80 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
(Endocrine system)					
adrenal	leukemic cell infiltration	<50> 0	<50> 0	<50> 0	<50> 1
(Reproductive system)					
semin ves	leukemic cell infiltration	<50> 1	<50> 0	<50> 0	<50> 1
prostate	leukemic cell infiltration	<50> 1	<50> 1	<50> 0	<50> 1
(Nervous system)					
brain	leukemic cell infiltration	<50> 1	<50> 2	<50> 1	<50> 3
	metastasis:pituitary tumor	0	1	0	0
spinal cord	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 3
	metastasis:bone tumor	0	0	0	1
(Special sense organs/appendage)					
Harder gl	leukemic cell infiltration	<50> 1	<50> 2	<50> 3	<50> 3
(Musculoskeletal system)					
muscle	metastasis:subcutis tumor	<50> 1	<50> 0	<50> 0	<50> 0

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

STUDY NO. : 0731
ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
REPORT TYPE : A1
SEX : MALE

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

PAGE : 4

Group Name		Control	5 ppm	20 ppm	80 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
(Musculoskeletal system)					
muscle		<50>	<50>	<50>	<50>
	metastasis:bone tumor	0	0	0	1
(Body cavities)					
pleura		<50>	<50>	<50>	<50>
	metastasis:bone tumor	1	0	0	0
mediastinum		<50>	<50>	<50>	<50>
	leukemic cell infiltration	0	0	0	1
	metastasis:bone tumor	1	0	0	0
< a >	a : Number of animals examined at the site				
b	b : Number of animals with lesion				

(JPT150)

BA1S5

TABLE P2

HISTOPATHOLOGICAL FINDINGS :

METASTASIS OF TUMOR :

FEMALE

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCr1Cr1j [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 5

Group Name		Control	5 ppm	20 ppm	80 ppm
No. of Animals on Study		50	50	50	50
Organ	Findings				
(Integumentary system/appandage)					
skin/app	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 0
(Respiratory system)					
nasal cavit	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 0
lung	leukemic cell infiltration	<50> 4	<50> 5	<50> 3	<50> 2
	metastasis:liver tumor	1	0	0	0
	metastasis:uterus tumor	0	1	0	0
	metastasis:kidney tumor	0	1	0	0
(Hematopoietic system)					
bone marrow	leukemic cell infiltration	<50> 0	<50> 1	<50> 1	<50> 1
	metastasis:adrenal tumor	0	0	1	0
lymph node	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 0
	metastasis:liver tumor	1	0	0	0
thymus	leukemic cell infiltration	<50> 0	<50> 0	<50> 1	<50> 0
spleen	metastasis:adrenal 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

STUDY NO. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 6

		Group Name	Control	5 ppm	20 ppm	80 ppm
		No. of Animals on Study	50	50	50	50
Organ	Findings					
(Circulatory system)						
heart	leukemic cell infiltration		<50> 0	<50> 2	<50> 1	<50> 2
	metastasis:pituitary tumor		1	0	0	0
(Digestive system)						
tongue	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 1
stomach	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
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> 5	<50> 6	<50> 8	<50> 3
	metastasis:uterus tumor		0	1	0	0
	metastasis:kidney tumor		0	0	1	0
pancreas	metastasis:uterus tumor		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:kidney tumor		0	0	1	0
(Urinary system)						
kidney	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrIj [F344/DuCrj]
REPORT TYPE : A1
SEX : FEMALE

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

PAGE : 7

		Group Name	Control	5 ppm	20 ppm	80 ppm
Organ	Findings	No. of Animals on Study	50	50	50	50
(Urinary system)						
urin bladd	metastasis:uterus tumor		<50> 0	<50> 1	<50> 0	<50> 0
(Endocrine system)						
pituitary	leukemic cell infiltration		<50> 0	<50> 1	<50> 1	<50> 0
adrenal	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
(Reproductive system)						
ovary	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
uterus	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
(Nervous system)						
brain	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:pituitary tumor		1	0	0	1
(Special sense organs/appendage)						
Harder gl	leukemic cell infiltration		<50> 3	<50> 2	<50> 2	<50> 3
(Musculoskeletal system)						
muscle	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. : 0731
 ANIMAL : RAT F344/DuCrIj [F344/DuCrIj]
 REPORT TYPE : A1
 SEX : FEMALE

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

PAGE : 8

		Group Name	Control	5 ppm	20 ppm	80 ppm
Organ	Findings	No. of Animals on Study	50	50	50	50
(Body cavities)						
mediastinum			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	1	0
peritoneum			<50>	<50>	<50>	<50>
	leukemic cell infiltration		0	0	1	0
	metastasis:uterus tumor		0	2	0	0
	metastasis:kidney tumor		0	1	1	0
retroperit			<50>	<50>	<50>	<50>
	metastasis:liver tumor		1	0	0	0
< a >	a : Number of animals examined at the site					
b	b : Number of animals with lesion					

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TABLE Q1

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

TABLE Q1 HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC LESIONS
IN JAPAN BIOASSAY RESEARCH CENTER : F344/DuCr1Cr1j MALE
RATS

Organs Tumors	No. of animals examined	No. of animals bearing tumor	Incidence (%)	Min. - Max. (%)
Pituitary gland	2741			
Adenoma		851	31.0	10 - 66
Adenoma / Adenocarcinoma		883	32.3	10 - 66
Spleen	2748			
Mononuclear cell leukemia		316	11.5	2 - 22

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, 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, 0686, 0691, 0704

TABLE Q2

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

TABLE Q2 HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC LESIONS
IN JAPAN BIOASSAY RESEARCH CENTER : F344/DuCr1Cr1j FEMALE
RATS

Organs Tumors	No. of animals examined	No. of animals bearing tumor	Incidence (%)	Min. - Max. (%)
Mammary gland	2547			
Fibroadenoma		284	11.2	0 - 20
Adenoma / Adenocarcinoma / Fibroadenoma		365	14.3	0 - 26

51 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, 0686, 0691, 0704

TABLE R1

CAUSE OF DEATH : MALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrIj]
SEX : MALE

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

PAGE : 1

Group Name	Control	5 ppm	20 ppm	80 ppm
Number of Dead and Moribund Animal	12	8	12	16
no microscop confirm	2	1	1	1
cystitis	1	0	0	0
chronic nephropathy	1	1	2	1
peritonitis	1	0	0	0
tumor d:leukemia	3	4	1	7
tumor d:subcutis	0	0	1	1
tumor d:spleen	0	2	0	0
tumor d:oral cavity	1	0	0	0
tumor d:pituitary	3	0	2	3
tumor d:thyroid	0	0	1	1
tumor d:brain	0	0	1	1
tumor d:Zymbal gl	0	0	2	0
tumor d:bone	0	0	0	1
tumor d:peritoneum	0	0	1	0

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TABLE R2

CAUSE OF DEATH : FEMALE

STUDY NO. : 0731
ANIMAL : RAT F344/DuCrI CrIj [F344/DuCrj]
SEX : FEMALE

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

PAGE : 2

Group Name	Control	5 ppm	20 ppm	80 ppm
Number of Dead and Moribund Animal	9	13	12	12
no microscop confirm	2	0	1	1
peritonitis	1	0	0	0
tumor d:leukemia	1	5	3	0
tumor d:oral cavity	1	0	0	0
tumor d:liver	1	0	0	0
tumor d:kidney	0	1	1	0
tumor d:pituitary	1	5	4	6
tumor d:adrenal	0	0	1	0
tumor d:uterus	1	1	1	3
tumor d:mammary gl	1	0	0	1
tumor d:prep/cli gl	0	0	0	1
tumor d:brain	0	1	1	0

(B10120)

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