1,4 - ジクロロ - 2 - ニトロベンゼンのラットを用いた経口投与によるがん原性試験(混餌試験)報告書

試験番号:0328

APPENDIX

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APPENDIX A 1

CLINICAL OBSERVATION: SUMMARY, RAT: MALE

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

linical sign	Group Name	Admini	stration We	eek-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
											•	•	•	•	
EATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0 .	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0 -	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
• •	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	800 ppm	ŏ	0	Ö	Ō	Ō	0	2	12	18	19	20	20	20	21
	2000 ppm	o	ő	ó	0	15	15	15	18	22	28	28	30	30	33
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12021231101	320 ppm	0	0	0	Ō	Ö	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	Ö	Ö	24	Ö	Ö	Ŏ	Ö	Õ	0	Ö	Ō	0
	2000 ppm	0	0	Ö	Ŏ	0	Ö	0	0	Ŏ	Ō	0	Ō	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

linical sign	Group Name	Admini	stration W	eek-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
EATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0 .	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	21	21	21	22	22	24	24	26	30	30	30	29	29	30
	2000 ppm	33	33	33	33	33	44	44	45	50	50	50	50	50	50
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
ВАТН	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231111	320 ppm	1	1	í	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	Ō	ō	ō	ō	0	ō	0	0	0	0	0	0	0
	2000 ppm	Ö	0	0	0	Ō	ō	0	0	0	0	0	0	0	0
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	.0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	0	0	0	2	2	2	2	2	2	2	2	2	2
	800 ppm	32	32	32	32	32	32	32	32	32	32	32	32	32	32
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	,0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 104 ALL ANIMALS

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name		stration W	eek-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	1	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	. 800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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 -	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	800 ppm	34	34	33	35	38	38	38	38	38	38	37	37	38	38
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	istration W	leek-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
ЕАТН	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	Ō	Õ	Ō	0	0	ō	0	ō	Ō	0	1
	2000 ppm	ő	0	ő	ō	0	0	Ō	Ō	0	0	0	0	1	1
RIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	2	2	2	2	2	2	2	2	2	3	3	3	3	3
	800 ppm	38	38	38	43	42	42	42	41	41	41	41	41	41	41
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	49	49
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
EATH	Control	1	1	1	1	2	. 2	2	2	2	2	2	2	2	3
	320 ppm	1	1	1	1	1	1	1	1	1	2	2	3	3	3
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	2	2	2	2
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	mqq 008	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RALYTIC GAIT	Control	0	0	0	0	0	0	0	1	. 1	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	800 ppm	41	43	43	44	44	44	44	43	43	43	44	44	44	44
	2000 ppm	49	49	49	49	49	49	49	49	49	49	48	48	48	48
ILOBRECTION	Control	0	0	0	0	0	0	1	1	1	1	0	0	1	0
	320 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admin:	stration W												
		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
ATH	Control	3	3	3	3	3	4	4	4	4	4	5	5	5	5
	320 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	800 ppm	1	1	1	1	1	1	1	2	2	2	2	2	2	3
	2000 ppm	2	2	2	2	2	3	3	5	6	6	6	6	6	6
RIBUND SACRIFICE	Control	1	1	1	1	1	1	2	2	3	3	3	3	3	3
	320 ppm	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	mqq 008	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	1	1	1	1	0	0	1	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	3	3	3	3	4	4	4	4	4	3	3	3	4	4
	800 ppm	45	45	45	45	45	45	45	44	44	44	44	44	44	42
	2000 ppm	48	48	48	48	48	47	47	45	44	44	44	44	44	44
ILOERECTION	Control	1	1	1	1	1	0	1	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX: MALE PAGE: 8

Clinical sign	Group Name	Admin	istration	Week-day				
01111101 01611	02000 110000	99-7	100-7	101-7	102-7	103-7	104-7	
DEATH	Control	5	5	5	6	7	7	
	320 ppm	3	4	4	4	4	4	
	800 ppm	3	3	3	3	5	6	
	2000 ppm	6	6	6	6	8	11	
MORIBUND SACRIFICE	Control	3	3	3	3	3	3	
MONIBORD SHOREF TOD	320 ppm	2	2	2	2	2	2	
	800 ppm	2	2	2	3	3	3	
	2000 ppm	0	0	0	0	0	0	
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	
JOOGHOTOIC MOVEMENT BEOK	320 ppm	0	0	0	0	0	0	
	800 ppm	0	0	0	0	0	0	
	2000 ppm	Ö	Ö	Ō	0	Ō	0	
EDICUDACIO DOCTOTONI	Cantual	0	0	0	0	0	0	
TUNCHBACK POSITION	Control	0	0	0	1	1	1	
	320 ppm 800 ppm	0	0	0	0	Ô	0	
		0	0	0	0	0	0	
	2000 ppm	U	U	v	U	v	V	
PARALYTIC GAIT	Control	0	0	0	0	0	1	
	320 ppm	1	0	0	0	. 0	0	
	800 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	
VASTING	Control	0	0	0	0	0	0	
1110	320 ppm	0	0	0	0	0	1	
	800 ppm	0	0	0	0	0	0	
	2000 ppm	1	1	1	1	1	. 1	
				_	•	•		
COLORED	Control	0	0	0	0	0	0	
	320 ppm	4	4	. 4	4	4	4	
	800 ppm	42	42	42	41	41	40	
	2000 ppm	44	44	44	44	42	39	
PILOERECTION	Control	0	0	0	0	0	0	
	320 ppm	0	0	0	0	0	1	
	800 ppm	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration We	eek-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
DATINA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
'RAUMA	Control 320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	Ô	Ö	0
	2000 ppiii	V	v	v	v	V	v	v	Ŭ	v	J	· ·	ŭ	•	J
OILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
NTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
==	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
RAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0 .	0	0	0	0	0
OILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	2	2	2
YE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	2
	2000 ppm	2	2	3	3	3	3	3	3	3	3	3	3	3	3
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	2
	2000 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
'RAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
YE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	3	3	3	3	4	4	4	4	4	4	4	4	4	4
CATARACT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	1	1	1	1	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
NTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
								•	•	•	•	•	•	•	
TRAUMA	Control	0	0	0	0	0	0	0	0	0 1	0	0	0	0 0	0
	320 ppm	0	0	0	0	0	0		0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0			0	0	0		
	2000 ppm	0	0	0	0	0	0	0	0	0	U	U	U	0	0
SOILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EYE OPACITY	Control	0	0	0	2	2	2	2	2	2	2	2	2	2	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	4	4	4	4	4	4	4	- 5	5	5	5	5	5	5
CATARACT	Control	0	0	0	2	2	2	2	2	2	2	2	2	2	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	2	2	2	2	2	2	2	3	3	3	3	3	3	3
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admin	istration W	'eek-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
RAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLLED PERI GENITALIA	Control	0	0	0	0	0	0	0 .	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
YE OPACITY	Control	2	2	2	2	2	2	2	. 2	2	2	2	2	2	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	2000 ppm	5	5	5	5	6	6	6	6	7	7	7	7	7	7
ATARACT	Control	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	2000 ppm	3	3	3	3	4	4	4	5	6	6	6	6	6	6
ORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	1	1	1	1	1	1	1
NTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
OSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
RAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLLED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
YE OPACITY	Control	2	2	2	2	2	2	2	2	2	2	3	3	3	4
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	3	3	3	3	3	3	3	3	3	3	4	4	4	4
	2000 ppm	7	8	8	8	8	8	8	8	8	8	8	8	8	8
ATARACT	Control	2	2	2	2	2	2	2	2	2	2	3	3	3	4
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	3	3	3	3	3	3	3	3	3	3	4	4	4	4
	2000 ppm	6	7	7	7	7	7	7	7	7	7	7	7	7	7
DRNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NTERIOS CHAMBER OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
OSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
TRAUMA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
EYE OPACITY	Control	4	4	4	4	4	4	4	4	4	4	3	3	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	2000 ppm	8	8	8	8	8	9	9	9	9	9	9	9	9	9
CATARACT	Control	4	4	4	4	4	4	4	4	4	4	3	3	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	2000 ppm	7	7	7	7	7	8	9	9	9	9	9	9	9	9
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANTERIOS CHAMBER OPACITY	Control	1	1	1	1	i	1	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign Group Name Administration Week-day
320 ppm 0 0 0 0 0 0 0 0 0
320 ppm 0
320 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
800 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2000 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2000 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
320 ppm 1 0 0 0 0 1 800 ppm 0 0 0 0 0
320 ppm 1 0 0 0 0 1 800 ppm 0 0 0 0 0
800 ppm 0 0 0 0 0
ון שמת וווועי
2000 99.11
EXOPHTHALMOS Control 0 0 0 0 0
320 ppm 0 0 0 0 0 0
800 ppm 1 1 1 1 1 1
2000 ppm 2 2 2 2 1
EYE OPACITY Control 3 3 3 3
320 ppm 0 1 1 1 1
800 ppm 4 4 4 4 4
2000 ppm 9 9 9 9 7
CATARACT Control 3 3 3 3 3 3
320 ppm 0 1 1 1 1 1
800 ppm 4 4 4 4 4 4
2000 ppm 9 9 9 9 7
CORNEAL OPACITY Control 0 0 0 0 0
320 ppm 0 0 0 0 0 0
800 ppm 0 0 0 0 0
2000 ppm 1 1 1 1 1 1
ANTERIOS CHAMBER OPACITY Control 0 0 0 0 0
320 ppm 0 0 0 0 0
800 ppm 0 0 0 0 0
2000 ppm 0 0 0 0 0
2000 ppm 0 0 0 0 0 0
NOSE HEMORRHAGIC DISCHA Control 0 0 0 0 0
320 ppm 0 0 0 0 0 0
800 ppm 0 0 0 0 0 0
2000 ppm 0 0 0 0 0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

linical sign	Group Name	Admini	stration We	eek-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
XTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
NECK	Control	0	0	0	0	0	0	0	0	0	0	0 .	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration We	eek-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
XTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
I. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LPERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
I. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-dav											
	V. V	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
EXTERNAL MASS	Control	0	0	0	0	0	1	0	0	0	1	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	1	0	1	0	0	0
	2000 ppm	1	1	1	1	0	0	0	0	1	0	0	0	0	0
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	1	0	1	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
A. PERI MOUTH	Control	0	0	0	0	0	1	0	0	0	1	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	0	0	0	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	Ō	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	Ö	Ö	Ô	Ö	0	0	0	0	0	0	0	0	0
	2000 ppm	ő	Ô	ō	ō	0	ō	0	0	Ō	0	0	0	0	0
M. BREAST	Control	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	Ö	Ö	0	Ö	0	Ō	0	0	0	0	0	0	0
	2000 ppm	0	Ö	Ō	Ö	0	0	0	0	0	0	0	0	0	0
	Str. ppm	•	-	-	-		-	-	-						

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admin	istration W												
		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
														_	
EXTERNAL MASS	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	1	1	1	0	0	0	2	2	2	1	3	1	1
	800 ppm	0	0	0	0	1	1	1	0	0	1	1	1	1	3
	2000 ppm	0	0	0	0	0	0	0	0	. 0	1	1	2	1	2
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0 -	0	0	0	0	0	0	0	0	0	0	0	0
PERI MOUTH	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	1	1	1	0	0	0	2	2	1	0	2	0	0
	mqq 008	0	0	0	0	1	1	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	1	0	0	0
ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

DEA · MALE															rade . 2
Clinical sign	Group Name	Admin	istration W	/eek-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
EXTERNAL MASS	Control	0	0	0	0	0	0	1	1	1	2	1	1	1	1
EXIERNAL MASS	Control 320 ppm	1	1	1	1	1	1	1	1	1	2	1 2	2	2	2
		3	3	3	3	4	3	3	4	4	4	5	6	8	7
	mqq 008		3	3	3	4	4	5 5	4	4	4	5	4	3	5
	2000 ppm	2	3	3	3	4	4	Đ	4	4	4	ð	4	3	5
INTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	Ö	Ö	ō	0	Ō	Ö	0	0	0	0	0	0	0
					_										•
M. PERI MOUTH	Control	0	0	0	0	0	0	1	1	1	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	1	0	0	0	0	0	0	0
M. ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
M. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. FERT EAR	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm 800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	U	U	U	U	U	U	U	U	U	Ų	U	U	U
M. NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
ER PERINT	320 ppm	0	0	0	0	0	0	0	0	0	Ö	0	0	Ŏ	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ô	Ô
	ակգ օօօ	U	U	U	U	U	V	V	Ų	Ū	v	V	v	v	Ü

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration We	ek-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
XTERNAL MASS	Control	1	1	2	2	4	3	4	4	4	5	4	5	4	5
	320 ppm	4	4	6	5	6	5	4	4	4	4	4	5	5	5
	800 ppm	8	6	6	6	6	6	4	4	5	5	5	5	5	5
	2000 ppm	5	4	4	4	4	4	3	3	4	5	5	5	9	9
TERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	2	0	0
NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	2	2
PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	. 1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	0	0
ORAL CAVITY	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BREAST	Control	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	320 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-dav											
	•	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
							•		•	_	•		0	•	
EXTERNAL MASS	Control	5	б	6	6	6	6	8	8	9	8	7	8	8	9
	320 ppm	5	6	6	7	7	7	7	8	8	9	9	10	11	10
	800 ppm	5	5	5	7	7	8	9	10	9	8	8	8	8	7
	2000 ppm	9	9	10	13	13	11	10	10	11	11	11	11	11	12
ITERNAL MASS	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE	Control	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 mag	1	2	2	2	2	2	1	2	2	3	3	4	4	3
	800 ppm	Ō	0	0	0	0	1	0	1	1	0	0	0	0	0
	2000 ppm	0	0	1	2	2	0	0	0	0	0	0	0	0	0
ORAL CAVITY	Control	I	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	3	3	3	3	3	3	3	3	3	3	3
PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	Ö	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	2	2	2	2	2	2
NECK	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0.	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ō	ō	ō	0	0	0	0	0	0	0	0	1	0	0
. BREAST	Control	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	320 ppm	ĩ	1	ī	ī	1	1	1	1	1	1	1	1	1	1
	800 ppm	1	î	ī	2	2	2	2	2	2	2	2	2	2	1
	2000 ppm	Ō	õ	Õ	0	0	0	0	0	ō	0	0	0	0	0

STUDY NO. : 0328 CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration	Week-day _					
-	-	99-7	100-7	101-7	102-7	103-7	104-7		
XTERNAL MASS	Control	10	10	9	9	7	9		
MIDITUID MIDD	320 ppm	11	12	12	14	14	14		
	800 ppm	7	8	8	8	8	10		
	2000 ppm	12	13	15	15	16	16		
	2000 ppm	12	13	19	10	10	10		
NTERNAL MASS	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
I. NOSE	Control	0	0	0	0	0	0		
	320 ppm	1	1	1	1	1	2		
	800 ppm	0	0	0	0	0	1		
	2000 ppm	2	2	2	2	2	2		
.PERI MOUTH	Control	0	0	0	0	0	0		
CIBRI MOOTH	320 ppm	3	3	3	3	2	1		
	800 ppm	Ö	0	0	Ö	Õ	Ô		
	2000 ppm	0	0	0	0	0	1		
	2000 ppm	V	v	v	v	٧	1		
.ORAL CAVITY	Control	1	1	1	1	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	3	3	3	3	2	2		
.PERI EAR	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	Ō	0		
	2000 ppm	2	3	4	4	4	3		
M. NECK	Control	0	0	0	0	0	0		
an anadyth	320 ppm	0	0	0	0	0	0 .		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
	2000 ppm	U	U	U	U	v	U		
I. BREAST	Control	2	2	3	3	3	3		
	320 ppm	1	2	2 ·	2	2	2		
	800 ppm	1	1	1	1 0	0	0		
	2000 ppm	0	0	0	Ω	0	0		

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
I. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ADDOMEN	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ö	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	ő	0
	Boot ppm	·	•	•	•	•	•	•	•	•	•				
. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 CLINICAL OBSERVATION (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	istration W	'eek-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
. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. Hodomber	320 ppm	Ö	0	Ö	Ö	Ö	0	0	Ŏ	Ö	0	0	Ō	0	0
	800 ppm	Ö	0	Ö	0	0	Ö	Ö	Ö	0	Ō	Ō	0	Ö	0
	2000 ppm	0	Ō	Ō	0	Ō	0	0	0	0	0	Ō	0	0	0
. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
L POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-dav											
		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
							_		_						
. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	Ō	0	0	0	0	0	0	Ō	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	Ō	0	0	0	0	Ō	0	0	0	0	0
I. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ō	Ō	0	Ō	Ō	Ö	Ō	0	Ō	Ō	Ō	Õ	0	0
	2000 ppm	0	0	0	0	0	0	0	0	Ō	0	0	Ö	0	0
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	Ö	0	Ŏ	Ö	Ö	Ö	Ö	Ō	Ö	Ö	Ö	0
	800 ppm	0	0	0	0	Ö	0	0	0	0	0	0	0	ő	0
	2000 ppm	ő	0	Ö	0	0	0	0	0	0	0	0	0	0	0
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	Ô	Ö	0	0	0	Ö	0	0	0	Õ	0	Ŏ	Ö	0
	800 ppm	0	0	0	0	Ŏ	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

linical sign	Group Name	Admin	istration W	eek-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
A DDOWDA	G1		^	^	•	0	0	0	^	0	0	^	^	^	0
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0 0	0	0 0	0 0	0	0 0	0	0	0 0	0	0	0	0
	800 ppm 2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 քիա	U	U	U	U	U	U	U	U	U	U	U	U	U	U
ANTERIOR, DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	2	1	1
POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
EMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name		istration P												
		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
4 DDOMPA)	0 4 1	^	^	^	0	•	0	^	^	^	0	0	0	0	0
. ABDOMEN	Control	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0
	320 ppm		0	0	0		0	0	0	0	0	0	0		0
	800 ppm	0	0 0	0	0 0	0 0	0	0	0	0	0	0	0	0 0	0
	2000 ppm	0	U	V	U	U	U	U	U	U	U	U	U	U	U
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	,0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	2	2	2	2	2	2	2	2	2	3	2	1	1
. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IIIIIDDIMD	320 ppm	0	0	0	ő	Ö	Ŏ	0	Õ	ő	Ō	Õ	0	Ö	0
	800 ppm	0	0	0	Ŏ	Ö	Ö	Ŏ	0	Ő	Ö	Ŏ	Ŏ	Ŏ	ő
	2000 ppm	Ö	0	Ö	Ö	Ö	0	0	0	Ö	Ö	Ö	0	Ö	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
· OLIVE INDEN	320 ppm	Ŏ	0	Ô	0	0	0	0	0	Ŏ	ő	Ŏ	Ŏ	Ŏ	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	ō	0	0	0	0	0	0	0	0	0
TAIL	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
· · · · · · · · · · · · · · · · · · ·	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	Ô	0
	800 ppm	2	2	2	2	3	2	2	3	3	3	4	4	6	6
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	3
	2000 ppm	-	•	•	•	•	-	•	•	-	-	-	-	•	v
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RUSTA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	800 ppm	Ō	0	Ō	0	Ō	0	0	0	0	0	0	Ō	1	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Administration Week-dey	81-7 82- 0 0 0 0	81-7	82-7	83-7	84-7
ALANTERIOR. DORSUM Control C					
ANTERIOR DORSUM		^	٥	0	0
SOO ppm	0 0			0	0
ALANTERIOR DORSUM Control 0 0 0 0 0 0 1 1 1 2 2 2 2 2 2 320 ppm 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1	0 0		0		
M. ANTERIOR. DORSUM Control 320 ppm 0 0 0 0 0 0 0 0 0 0 0 1 1 1 2 2 2 2 2 2			0	1	1
Section Sect	U U	U	U	1	1
Second S	2 2	2	2	2	2
SOO ppm	1 2	1	2	2	2
POSTERIOR DORSUM Control 320 ppm 1 1 1 1 1 1 1 1 1 1 1 1 1			1	1	1
320 ррш			0	0	0
320 ppm	0 0	0	0	0	0
S00 ppm			1	1	1
HINDLIMB Control O O O O O O O O O				1	-
HINDLIMB Control 320 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0	0	0
320 ppm	0 0	Ü	0	0	0
S00 ppm O O O O O O O O O	0 0	0	0	0	0
GENITALIA Control 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	0	0	0	0
GENITALIA Control 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	0	0	0	0
320 ppm	0 0	0	0	0	0
320 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	0	0	0	1
800 ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0	0	0
LTAIL Control 1 1 1 2 2 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1			0	0	0
320 ppm			ō	3	3
320 ppm	0 0	0	0	0	0
800 ppm 7 5 5 5 5 5 3 3 3 3 3 2000 ppm 3 2 2 2 2 2 1 1 1 1 2 NEMIA Control 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0	0	0
2000 ppm 3 2 2 2 2 2 1 1 1 1 2 NEMIA Control 0 0 0 1 0 , 0 0 0 0 0 0 0 0 0 0 0 0 0 0		-		-	
NEMIA Control 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			3	3	3
320 ppm 0 0 0 0 0 0 0 0 0	2 2	Z	2	2	2
1 11 1			0	0	0
		0	0	1	1
800 ppm 0 0 0 0 0 0 0 0 0 0	0 0	0	0	0	0
2000 ppm 0 0 0 0 0 0 0 1 1 1	0 0	0	0	0	0
RUSTA Control 0 0 0 0 0 0 0 0 0	1 1	1	1	1	1
320 ppm 1 1 1 1 1 2 3 2 2	2 1		1	1	1
800 ppm 2 2 2 2 2 2 2 2 2 2 2			2	2	2
2000 ppm 1 1 1 1 1 1 1 1 1 1 1			2	2	2

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

linical sign	Group Name	Admini	istration W	eek-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
				_											_
ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	2	2	2	2	2	2	2	1	1	1	1	1	1	1
	320 ppm	2	2	2	2	2	2	3	3	3	3	3	3	4	4
	800 ppm	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	1	1	1	1	1	2	2	2	2	2	2
POSTERIOR DORSUM	Control	0	0	0	0	0	0	1	2	2	2	1	1	1	1
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	1	1	1	1	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	1	2	2	2	2	2	2	2	2	3	3	3	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	3	3	3	3	3	3	3	2	2	2	2	2	2	2
TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	Ö	Ö	Ő	1	1	1	1	1	1	1	1	1	i	1
	800 ppm	3	3	2	2	2	2	2	2	ī	ī	1	1	1	2
	2000 ppm	2	2	2	2	2	2	2	2	1	i	1	1	1	2
EMIA	Control	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Partition of B	320 ppm	0	1	1	1	1	1	Ö	Ö	Ō	Ô	0	Ô	0	0
	800 ppm	0	0	0	0	0	0	0	0	Ő	0	0	0	0	0
	2000 ppm	0	0	0	1	1	1	1	1	1	1	0	0	0	1
	2000 ppm	U	U	v	1	1	1	1	1	ı		v	v	v	1
USTA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	5
	320 ppm	1	1	2	3	3	3	3	3	3	3	3	3	3	8
	800 ppm	2	2	4	4	4	4	4	4	7	7	7	7	8	9
	2000 ppm	2	2	3	3	3	3	3	3	4	4	4	4	4	5

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

				Week-day _						
		99-7	100-7	101-7	102-7	103-7	104-7			
I. ABDOMEN	Control	1	1	1	1	1	1			
	320 ppm	0	0	0	1	1	1			
	800 ppm	1	2	2	2	2	2			
	2000 ppm	0	0	1	1	1	1			
I. ANTERIOR. DORSUM	Control	1	1	1	1	1	2			
	320 ppm	4	4	4	5	5	5			
	800 ppm	2	2	3	3	3	4			
	2000 ppm	2	2	1	1	2	2			
POSTERIOR DORSUM	Control	1	1	0	0	0	0			
. TOSTERLOR BORDON	320 ppm	1	1	2	2	2	2			
	800 ppm	2	2	2	2	2	2			
		1	1	1	1	1	1			
	2000 ppm	1	1	1	1	ı	ı			
HINDLIMB	Control	1	1	1	1	1	1			
	320 ppm	0	0	0	0	0	0			
	800 ppm	0	0	0	0	0	0			
	2000 ppm	0	0	0	0	0	0			
GENITALIA	Control	3	3	3	3	2	2			
	320 ppm	0	0	0	0	0	0			
	800 ppm	1	1	1	1	1	1			
	2000 ppm	2	2	2	2	2	3			
PAIL .	Control	1	1	1	1	1	2			
*****	320 ppm	1	1	1	1	1	1			
	800 ppm	2	2	2	2	2	2			
	2000 ppm	2	2	2	2	2	2			
		4	۷	۷	4	۵		•		
EMIA	Control	1	1	1	2	1	1			
	320 ppm	0	0	0	0	0	0			
	800 ppm	0	0	0	0	0	1			
	2000 ppm	1	1	1	1	1	1			
USTA	Control	5	5	5	5	5	5			
	320 ppm	9	9	9	9	9	13			
	800 ppm	9	9	9	9	9	9			
	2000 ppm	5	5	5	5	5	5			

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX: MALE

Clinical sign	Group Name	Admini	stration We	eek-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
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	45	46	39	46	46	48	50	50	50	50	50	50	50
	800 ppm	37	49	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	42	49	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	24	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	50	50	50	50	50	50	50	50	49	49	49	49	49	49
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	٥	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	1	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ō	Ō	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	Ō	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admin	istration W	eek-day											
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	mqq 008	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
SMALL STOOL	Control	0	0	0	0	0	. 0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
DLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	stration W	eek-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
				•			•	•	^	^	0	0	0 .	0	0
IEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0								0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	,0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
•	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ō	0	0	0	0	0	0	0	0	0	0	0	0	0
	1, 1, 1,		0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admin	istration W	eek-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	70-1
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	. 0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	49
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	49	49
SMALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
DLIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(

STUDY NO. : 0328

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admini	istration W	eek-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-
IEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	C
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	C
	800 ppm	0	0	0	0	0 -	0	1	0	0	0	0	0	0	C
	2000 ppm	0	0	0	. 0	0	0	0	0	0	0	0	0	0	C
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
YELLOW URINE	Control	0	0	0	1	0	0	0	0	0	0	0	0	0	(
	320 ppm	49	49	49	49	49	49	49	48	48	47	47	46	46	48
	800 ppm	49	49	49	49	49	49	49	48	48	48	48	48	48	48
	2000 ppm	49	49	49	49	49	49	49	49	49	49	48	48	48	48
SMALL STOOL	Control	0	0	0	0	1	0	1	1	1	1	0	1	1	(
	320 ppm	0	0	0	0	0	0	1	1	1	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	(
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
LIGO-STOOL	Control	0	0	0	0	1	0	0	0	0	1	0	0	1	
	320 ppm	0	0	0	0	0	0	2	1	1	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	(
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	(

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : MALE

Clinical sign	Group Name	Admin	istration W	eek-day											<u> </u>
	_	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
IEMORRHAGE	Control	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
BNORMAL TESTIS	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	1	1	1	1	0	0	0	0	0	1	0
	2000 ppm	0	0	0	2	2	1	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	1	1	1	1	0	0	0	0	0	1	0
	2000 ppm	0	0	0	2	2	1	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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	1	1	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	46	46	46	46	46	46	46	46	46	45	45	45	45	45
	800 ppm	48	48	48	48	48	48	48	47	47	47	47	47	47	45
	2000 ppm	48	48	48	48	48	47	47	45	44	44	44	44	44	44
SMALL STOOL	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	.0	1	0	0
DLIGO-STOOL	Control	0	0	0	0	0	0	1	. 0	1	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	2000 ppm	0	0	0	2	2	0	0	0	0	0	0	1	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

REPORT TYPE : A1 104

SEX : MALE

Clinical sign	Group Name	Admin	istration	Week-day			
	or out them	99-7	100-7	101-7	102-7	103-7	104-7
HEMORRHAGE	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	0
						_	٠
ABNORMAL TESTIS	Control	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1
	2000 ppm	0	0	0	0	0	1
IRREGULAR BREATHING	Control	0	0	0	0	0	0
TRREGODAR DREATHING	320 ppm	0	0	1	1	1	1
	800 ppm	0	0	0	0	Ō	0
	2000 ppm	0	0	1	1	1	1
	2000 քքա	v	U	1	1	1	ı
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0
	320 ppm	0	0	1	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	1	1	1	1
DEDD DDDAWITHG	a	•	^	0	^	^	0
DEEP BREATHING	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0
	320 ppm	45	44	44	44	44	44
	800 ppm	45	45	45	44	42	41
	2000 ppm	44	44	44	44	42	39
SMALL STOOL	Control	0	0	0	1	0	0
	320 ppm	0	0	0	1	1	1
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
OLIGO-STOOL	Control	0	0	0	1	1	0
OD100 0100D	320 ppm	1	0	1	1	1	2
	800 ppm	Ô	0	Ô	Ô	Ô	0
	2000 ppm	0	0	0	ŏ	Ö	0
	Booo ppm	•	•	•	•	-	-

APPENDIX A 2

CLINICAL OBSERVATION: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration We												
		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
EATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	2	2	3	3	4	4	4	4
	800 ppm	0	0	5	6	6	6	11	12	13	13	13	14	14	14
	2000 ppm	0	0	22	23	26	28	29	30	31	32	32	32	32	35

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
						,									
EATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	4	4	4	4	4	4	4	4	4	4	4	4	6	6
	800 ppm	14	14	15	15	15	16	15	16	16	16	18	18	21	21
	2000 ppm	36	36	39	41	41	41	38	42	42	42	43	43	45	45

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-day											··
		29-7	30-7	31-7	32-7	33-7	34-7	35-7	36-7	37-7	38-7	39-7	40-7	41-7	42-7
DEATH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	6	6	6	6	7	7	7	7	7	8	8	8	8	8
	800 ppm	21	21	21	21	21	22	23	24	24	24	25	25	25	25
	2000 ppm	46	46	46	46	46	46	46	47	46	47	47	47	47	47

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	-	-	-
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
`ERAL	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0 .	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	, 0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ō	Ö	Ō	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	ō	Ö	Ō	0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ō	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ō	ō	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	8	8	8	8	8	10	10	11	11	12	12	12	13	13
	800 ppm	25	27	27	27	27	27	27	26	26	27	28	28	28	28
	2000 ppm	47	47	47	47	47	47	47	48	48	48	48	48	48	48

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	istration W	leek-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
реатн	Control	0	0	0	0	0	0	0	1	2	2	2	2	2	2
, mili	320 ppm	0	0	0	Õ	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ö	0	ō	0	Ō	0	0	0	0	0	0	1	1	1
	2000 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
ORIBUND SACRIFICE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0 -	. 1	1	1	3	3	3	3	3	3	3
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERAL	320 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0.	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	13	13	12	12	12	12	12	12	11	11	11	11	11	11
	800 ppm	28	28	28	27	27	27	27	27	27	27	27	27	27	27
	2000 ppm	48	48	49	48	49	49	49	49	49	49	49	49	49	49

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
EATH	Control	2	2	2	2	2	2	2	2	2	2	2	3	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	1	1	1	2	2
	800 ppm	1	1	1	2	2	2	2	3	3	3	3	3	4	4
	2000 ppm	1	1	1	1	1	1	1	1	2	2	3	3	3	3
ORIBUND SACRIFICE	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	800 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	1	2
OCOMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0 -	0
,	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0
ATERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERAL	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUNCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	. 0	0	0	0	0
	2000 ppm	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0
ASTING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	2	2	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	11	10	10	10	11	11	11	13	13	13	13	14	14	14
	800 ppm	27	27	27	26	26	26	26	26	26	26	26	24	23	23
	2000 ppm	49	49	49	49	49	49	49	49	48	48	47	46	46	45

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name		istration W	eek-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
					•		0	0	0	~		-	F	_	F
EATH	Control	3	3	3	3	3	3	3	3	5	5 6	5 6	5 6	5 6	5 6
	320 ppm	2	2	2	2	2	4	4	4	5		-			
	800 ppm	4	4	4	4	6	6	7	7	8	8	8	8	8	10
	2000 ppm	3	3	3	3	3	4	5	7	7	8	9	9	10	10
RIBUND SACRIFICE	Control	1	1	1	1	1	1	1	1	1	2	2	2	2	2
	320 ppm	3	3	3	3	3	3	3	3	3	3	4	5	5	6
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	2	2	2	2	2	2	2	2	3	3	3	3	3	3
COMOTOR MOVEMENT DECR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	-0	0	0	0	0	0	0	0	1	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERAL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ERAL	320 ppm	0	0	0	0	0	0	0	0	0-	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NCHBACK POSITION	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RALYTIC GAIT	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
STING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	ì	1	1	1	1	1	2	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLORED	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*	320 ppm	14	15	15	15	15	14	14	14	14	15	15	14	14	14
	800 ppm	23	23	23	22	22	22	21	21	21	23	23	23	23	23
	2000 ppm	45	45	45	44	44	43	42	40	39	38	37	37	36	36

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	istration	Week-day _			
		99-7	100-7	101-7	102-7	103-7	104-7
					•		
DEATH	Control	6	6	7	9	9	9
	320 ppm	7	7	7	7	8	9
	800 ppm	10	10	10	10	10	10
	2000 ppm	10	12	12	12	13	13
MORIBUND SACRIFICE	Control	2	2	2	2	3	3
MOKIDOND SACKIFICE	320 ppm	6	6	6	6	6	6
	800 ppm	1	1	1	1	1	1
	2000 ppm	3	3	3	3	3	3
LOCOMOTOR MOVEMENT DECR	Control	0	0	0	0	1	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	ő	0	Ö	ō	Ö	ō
I AMEDAI	0 1	^	0	0	0		0
LATERAL	Control	0				1	
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
HUNCHBACK POSITION	Control	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	ō	0	ō	ō	ō	0
DADAL WYTO OATY	C1	^	^	^	^	^	٨
PARALYTIC GAIT	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	mqq 008	0	0	0	0	1	1
	2000 ppm	0	0	0	0	0	0
WASTING	Control	0	1	1	1	2	1
	320 ppm	0	0	0	0	0	0
	800 ppm	1	1	ì	1	1	i
	2000 ppm	ō	0	Ô	0	0	Ô
						_	
COLORED	Control	0	0	0	0	. 0	0
	320 ppm	13	13	13	13	13	13
	800 ppm	23	23	23	23	23	23
	2000 ppm	36	34	34	34	33	33

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 104 ALL ANIMALS

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration We	eek-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
									•	•	•	•	^	•	•
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

PAGE: 50 SEX : FEMALE

Clinical sign	Group Name	Admini	istration W	eek-day								<u>, , , , , , , , , , , , , , , , , , , </u>			
		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
									_	_					
PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
) DEULI	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LED PERI GENITALIA	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0 -	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE OPACITY	Control	0	0	1	1	1	1	1	1	1	2	2	2	2	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	Ö	0	1	1	1	2	2	2	2	2	2	2	2
	2000 ppm	ō	0	ō	o -	ō	0	0	0	0	0	0	0	0	0
ATARACT	Control	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Õ	Õ	0	1	1	i	2	2	2	2	2	2	2	2
	2000 ppm	Ö	Õ	Ö	Õ	ō	Õ	0	0	Ō	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	stration W	eek-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
						•	•		•	•	^	•	^	^	^
PILOERECTION	Control	0	0	0	0	0	0	0	0	0 0	0 0	0	0 0	0	0 0
	320 ppm	0	0	0	0	0	0	-	0	-		-	0	0	
	800 ppm	0	0	0	0	0	0	0	0	0	0	0		_	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE OPACITY	Control	2	2	2	3	3	3	3	3	3	3	3	4	4	4
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATARACT	Control	1	1	1	2	2	2	2	2	2	2	2	3	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	istration W												
		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
LOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E OPACITY	Control	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TARACT	Control	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-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
ILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	18	0	0	0	0	0	0	0	0	0
SS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LED PERI GENITALIA	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E OPACITY	Control	4	4	5	5	5	6	6	6	6	6	6	6	6	6
	320 ppm	1	1	1	1	1	2	2	2	1	1	1	1	1	1
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	3	3	4	4	4	5	5	5	5	5	5	5	5	5
	320 ppm	1	1	1	1	1	2	2	2	1	1	1	1	1	1
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-day											
		71-7	72-7	73-7	74-7	75-7	76-7	77-7	78-7	79-7	80-7	81-7	827	83-7	84-7
PILOERECTION	Control	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	2	2	2	2	3	3	3
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROG BELLY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	0	0	0
OILED PERI GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XOPHTHALMOS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YE OPACITY	Control	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	320 ppm	1	1	1	1	2	3	3	3	3	3	3	3	3	3
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	3	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATARACT	Control	5	5	5	5	5	5	5	5	5	5	5	5	5	5
·	320 ppm	1	1	1	1	2	2	2	2	2	2	2	2	2	2
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE															PAGE: 55
Clinical sign	Group Name	Admini 85-7	stration 7 86-7	Week-day 87-7	88-7	89-7	90-7	91-7	92-7	93-7	94-7	95-7	96-7	97-7	98-7

PILOERECTION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	3	3	3	3	3	3	2	2	2	2	2	2	2	2
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	1	0	0	1	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
EYE OPACITY	Control	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	320 ppm	3	3	3	3	3	3	3	3	2	2	2	2	2	2
	800 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 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	5	5	5	5	5	6
-	320 ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	mqq 008	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	istration N	Veek-day			
	-a vap trans	99-7	100-7	101-7	102-7	103-7	104-7
							-
PILOERECTION	Control	0	0	0	0	1	2
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
LOSS OF HAIR	Control	0	0	0	0	0	0
LOSS OF TAIK	320 ppm	0	0	0	0	0	0
	320 ppm 800 ppm	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0
FROG BELLY	Control	0	0	0	0	0	0
I NOO DDDDI	320 ppm	0	0	0	ő	Ö	ŏ
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
	2000 phii	v	v	v	J	v	v
SOILED PERI GENITALIA	Control	0	0	0	0	1	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	Ö	Ŏ	Ō	0	0	0
	**						
EXOPHTHALMOS	Control	0	0	0	0	0	0
	320 ppm	1	1	1	1	1	1
	800 ppm	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0
EYE HEMORRHAGIC DISCHA	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
EVE ADACITY	C4 1	e	c	c	c	c	6
EYE OPACITY	Control	6	6	6	6	6	
	320 ppm	1	2	2	3	3	3
	800 ppm	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0
CATARACT	Control	6	6	6	6	6	6
	320 ppm	1	2	2	3	3	3
	800 ppm	2	2	2	2	2	2
	2000 ppm	0	0	0	0	0	0
	2000 ppiii	U	•	•	·	•	•

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W												
		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
									•		•	•	•	•	^
CORNEAL OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	•	-
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0
I. PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

ORNEAL OPACITY NTERIOS CHAMBER OPACITY	Control 320 ppm 800 ppm 2000 ppm Control 320 ppm 800 ppm 2000 ppm	0 0 0 0 0 0	0 0 0 0 0	17-7 1 0 0 0	18-7 1 0 0 0	19-7 1 0 0	20-7 1 0 0	1 0	1 0	23-7 	24-7 1 0	25-7 1 0	26-7 . 1 0	27-7 1 0	28-7 1 0
NTERIOS CHAMBER OPACITY	320 ppm 800 ppm 2000 ppm Control 320 ppm 800 ppm 2000 ppm	0 0 0 0	0 0 0	0 0 0	0 0 0	0 0	0	0	0	0	0	0	0	0	
NTERIOS CHAMBER OPACITY	320 ppm 800 ppm 2000 ppm Control 320 ppm 800 ppm 2000 ppm	0 0 0 0	0 0 0	0 0 0	0 0 0	0 0	0	0	0	0	0	0	0	0	
	800 ppm 2000 ppm Control 320 ppm 800 ppm 2000 ppm	0 0 0 0	0 0	0 0	0	0							_	-	0
	2000 ppm Control 320 ppm 800 ppm 2000 ppm	0 0 0	0 0	0	0		0	^	^						
	Control 320 ppm 800 ppm 2000 ppm	0 0 0	0	0		0		0	0	0	0	0	0	0	0
	320 ppm 800 ppm 2000 ppm	0	0		-	-	0	0	0	0	0	0	0	0	0
	320 ppm 800 ppm 2000 ppm	0	0		0	0	0	0	0	0	0	0	0	0	0
	800 ppm 2000 ppm	0			0	0	0	0	0	0	0	0	0	0	0
	2000 ppm		v	Ö	0	ŏ	0	1	1	i	i	1	i	1	1
		v	0	0	0	0	0	0	0	Ô	Ô	0	Ô	ō	0
	0 . 7		U	U	U	v	U	v	U	U	J	v	v	V	v
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	o o	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	ō	0.	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ö	0	0	0	0	0	0	0	0	0	0	0	0	0
NOCE	01	^	0	^	0'	0	0	0	0	0	0	0	0	0	0
I. NOSE	Control	0	0	0			0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0		0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0				0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	U	U	U	U	U
I. PERI MOUTH	Control	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n I was will	320 ppm	Ö	Ö	0	Ō	0	0	0	0	0	0	0	0	0	0
	920 ppm 800 ppm	0	0	0	0	Ö	Ö	Ö	0	0	Õ	Ō	0	Ö	0
	2000 ppm	0	0	0	0	0	0	0	0	0	Ö	0	0	Ö	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name	Admini	stration N	eek-dav											
		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
ORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 mmq	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERNAL MASS	Control	1	0	0	0	0	. 0	0	0	1	1	1	0	0	0
	320 ppm	0	0	0	0	1	1	1	1	0	0	0	0	0	0
	mqq 008	0	0	0	0	1	1	1	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	0	0	1	1	1	1	1	1
TERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERI MOUTH	Control	1	0	0	0	0	0	0	0	1	1	1	0	0	0
	320 ppm	0	0	0	0	1	1	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	1	1	1	1	1	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	0	0	0	0	0	0	0	0
PERI EAR	Control	0	0	0 .	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	istration W	eek-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
															•
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1 0	1 0	1 0	1 0	1 0	1	1 0
	320 ppm	0	0	0	0	0	0	-					0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	U	U	U	U
VTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	0	0	0	1	1	1	1	1	1	1	1	1	2	2
	320 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	2	1
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	Ō	Ō	Ō	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	stration W	eek-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
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	-	-		-
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	2	2	2	2	3	3	3	2	2	2	2	2	2	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	1	1	1	1	2	1	1	2	2	2	1	1	1
	2000 ppm	2	2	2	1	1	1	1	2	2	2	2	2	2	2
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LPERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	1	1	1	1	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	2	2	2	2	2	2	2	2	2	2	2	2	3	4
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	3	3	3	4	4	4	5	5	6	6	6	6	6	7
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. NOSE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I. PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	800 ppm	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W												
		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
															^
CORNEAL OPACITY	Control	1	1	1	1	1	1	1	1	1	1	1	1	1 0	0
	320 ppm	1	1	1	1	1	1	1	1	0	0	0	0	-	
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL GROWTH OF TEETH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
XTERNAL MASS	Control	4	4	4	4	4	4	4	4	4	4	3	4	4	6
	320 ppm	0	0	1	1	1	0	0	0	0	. 0	0	1	1	2
	800 ppm	1	1	2	2	2	3	2	2	1	1	2	2	2	3
	2000 ppm	9	9	9	9	9	8	7	6	5	5	4	4	4	5
NTERNAL MASS	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0 -	0	0
	800 ppm	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	1
. NOSE	Control	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
.PERI MOUTH	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	1	1	1	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
.PERI EAR	Control	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	Ó	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name		istration	Week-day _				 	
-		99-7	100-7	101-7	102-7	103-7	104-7		
CORNEAL OPACITY	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
ANTERIOS CHAMBER OPACITY	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
•	2000 ppm	0	0	0	0	0	0		
ABNORMAL GROWTH OF TEETH	Control	0	. 0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
EXTERNAL MASS	Control	5	5	4	4	4	5		
	320 ppm	3	2	2	2	2	5		
	800 ppm	3	3	3	1	1	2		
	2000 ppm	7	7	7	7	7	7		
INTERNAL MASS	Control	1	1	1	0	0	0		
	320 ppm	0	0	0	0	0	0		
	mqq 008	0	0	0	0	0	0		
	2000 ppm	1	1	1	1	1	0		
M. NOSE	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	1	1	1	1	1	1		
M. PERI MOUTH	Control	0	0	0	0	0	0		
	320 ppm	1	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
M. PERI EAR	Control	1	1	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration We	eek-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
												_		_	
.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	. 0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0
. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name		stration W	eek-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
													•	•	
FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-day _											
<u>-</u>		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
FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PORLIMB	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm 800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 քրա	U	U	Ü	U	v	U	U	U	V	v	V	V	V	v
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. ABDOMEN	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	1	1	1	1	1	1
. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0 .	0	0
. HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0 .	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. GENITALIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0 .	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name		stration W												
		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. FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	-	
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. BREAST	Control	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M. TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W												
		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
						•	•	•	^	^	0	^	^	^	0
.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0		0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	U	U	U
BREAST	Control	1	1	1	1	1	1	1	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABDOMEN	Control	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	2000 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0 .	0	C
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE PAGE : 70

Clinical sign	Group Name	Admini	stration W	eek-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
.FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. FOREIMB	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0
	add obu	U	V	v	U	v	V	V	•	U	•	V	•	v	v
BREAST	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
. ABDOMEN	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
י אפאווסממע	320 ppm	0	0	0	0	0	0	0	0	0	0	0	Ô	Ô	0
	320 ppm 800 ppm	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm 2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 քիա	V	U	v	J	v	V	v	•	v	v	•	v	•	•
ANTERIOR. DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	2	1	1	1	1	1	1	1	1	1	2
POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	ō	Ō	0	0	0	0	Ō	0	0	0	0	0
	800 ppm	0	0	0	Ō	0	0	Ō	Ō	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GENITALIA	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
· varia stibuti	320 ppm	0	0	0	ō	0	0	0	Ô	ō	0	0	0	0	0
	800 ppm	0	0	Ö	Õ	Ö	Ö	ŏ	0	Ŏ	Ö	Ö	Õ	Ö	Ŏ
	2000 ppm	1	1	1 .	1	2	2	2	2	2	2	2	2	2	2
	2000 ppm	•	*	•	•	-	_	-	-	-	-	-	-	_	-
.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	0	0	0	0	0	0	1	1	1	1	1	1	1	1

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name		stration We	ek-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
FORLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BREAST	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0	0
. ABDOMEN	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	1 1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	-
	mqq 008	0	0	1	1	1	2	1	1	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	U
ANTERIOR. DORSUM	Control	1	1	1	1	1	1	1	1	1	1	1	1	1	2
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	2	2	2	2	1	0	0	0	0	0	0	0
. POSTERIOR DORSUM	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	U
.HINDLIMB	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
. GENITALIA	Control	I	1	1	1	1	1	1	1	1	1	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	800 ppm	0	0	0	0	0	1	1	1	0	0	1	1	1	2
	2000 ppm	4	4	4	4	4	4	4	3	3	3	2	2	2	2
.TAIL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	istration	Week-day _			
		99-7	100-7	101-7	102-7	103-7	104-7
M. FORLIMB	Control	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
	- Soo ppm	J	-	-	-	-	-
M. BREAST	Control	1	1	1	1	1	1
	320 ppm	0	0	0	0	0	0
	800 ppm	1	1	1	1	1	1
	2000 ppm	1	2	2	2	2	2
	2000 ppill	_		2	₩	-	_
M. ABDOMEN	Control	0	0	0	0	0	0
The Course of Course Co	320 ppm	1	1	1	1	1	2
	800 ppm	ō	ō	Ō	0	0	0
	2000 ppm	Ŏ	0	Ŏ	1	1	1
	pood ppm	•	•	•	-	-	**
M. ANTERIOR. DORSUM	Control	2	2	2	2	2	2
A TRITICAL DOLLO IN	320 ppm	0	0	0	0	0	0
	800 ppm	Ö	Õ	0	0	0	0
	2000 ppm	0	0	0	0	0	0
	2000 ppm	•	v	ŭ	•	•	-
M. POSTERIOR DORSUM	Control	0	0	0	0	0	0
m. 1 031ERIOR DORSON	320 ppm	0	Ŏ	Ŏ	Ō	Ŏ	0
	800 ppm	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0
	2000 ppm	v	Ų	U		Ü	u
M. HINDLIMB	Control	0	. 0	0	0	0	0
me man to be the	320 ppm	0	0	0	ō	0	0
	800 ppm	0	0	Ö	ŏ	ō	0
	2000 ppm	1	1	1	1	1	1
	2000 քրա	1	1		*	•	*
M. GENITALIA	Control	1	1	1	1	1	2
no obot morn	320 ppm	1	1	1	ĩ	1	3
	800 ppm	2	2	2	Ō	Ō	1
	2000 ppm	3	2	2	1	1	1
	2000 ppm	3	۷	4		_	r
M. TAIL	Control	0	0	0	0	0	0
m. into	320 ppm	0	0	Ő	0	Ö	Ô
	800 ppm	1	1	1	1	1	1
	2000 ppm	1	1	1	1	1	1
	∠ooo ppm	1	ī	1	Ţ	1	*

STUDY NO. : 0328

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name		stration We												
		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
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IAUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	U
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	U	U
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	U	0	Ĺ
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	C

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
ANEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IAUNDISE	Control	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	1
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	U
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	mqq 008	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 բբա	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0.	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	. 320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	0	0	0	0	0	0	0	0
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
•	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOISY	Control	0	0	0	0	0	0	0	0	0	0	0	0 .	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin:	istration W											·	
-		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
SUDJET A	Construit	^	0	0	0	0	0	0	0	0	0	0	0	0	0
NEMIA	Control 320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	Ŏ	0	Ö	0
	2000 ppm	0	U	· ·	ŭ	Ū	Ū	Ū	Ū	v	J	v	v		Ů
AUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANDOUGH BREATHER	320 ppm	Ō	0	0	0	0	0	0	2	0	0	0	0	0	0
	800 ppm	0	Ō	0	0	0	0	0	0	. 0	0	0	0	0	0
	2000 ppm	0	Ō	0	0	0	0	0	0	0	0	0	0	0	0
OISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.0101	320 ppm	Ö	0	ō	Ö	0	0	Ö	0	Ō	0	0	0	0	0
	800 ppm	Ŏ	0	Ö	Ö	0	Ō	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIOUME HOUSEHALLOW	320 ppm	0	0	0	0	0	Ő	Ö	2	Ö	Ö	Ō	0	0	0
	800 ppm	0	0	0	0	Ö	Ö	0	0	Ö	0	Ō	0	0	0
	2000 ppm	0	0	0	Ŏ	0	Ô	0	0	0	Ō	0	0	0	0
	2000 ppill	•	v	~	•	Ť	Ť	ŭ	Ť	*	-	-	-		-
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admini	stration W	eek-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
NEMIA	Control	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	800 ppm	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	1	1	1	1	1	1	2	2	2	1
AUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	1
HEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	1
RREGULAR BREATHING	Control	0	0	0.	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	1	0	0	0	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	1	1	1	1	0	0	0
OISY	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	800 ppm	0	0	1	0	0	0	0	0	0	0	0	1	0	0
	2000 ppm	0	0	0	0	0	0	0	1	1	1	1	0	0	0
TACHYPNEA	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	stration %	eek-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
												•	^	•	0
NEMIA	Control	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	320 ppm	0	1	1	1	1	0	1	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	2	2	3	3	3	1	2	1	2	2	1	1	1	2
AUNDISE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 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
	320 ppm	1	1	1	1	1	1	1	1	1	0	0	0	0	0
	800 ppm	0	1	1	1	1	1	0	0	0	0	0	0	0	0
	2000 ppm	1	1	1	1	1	1	1	1	1	1	1	1	3	3
IEMORRHAGE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	2	0	0	0	1	0	0	0	0	0	1	0	0
	800 ppm	0	0	0	1	0	0	0	0	0	1	0	0	0	0
	2000 ppm	1	2	1	1	1	1	0	0	0	0	2	2	0	0
IRREGULAR BREATHING	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
OISY	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMAL RESPIRATION	Control	0	0	0	0	0	0	0	. 0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	2
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
rachypnea	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admin	istration	∛eek-day _				 	
		99-7	100-7	101-7	102-7	103-7	104-7		
								 	 ••••
NEMIA	Control	1	1	1	0	0	1		
	320 ppm	0	1	1	0	1	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	2	2	3	3	3	2		
AUNDISE	Control	0	0	0	0	0	0		
MONDIOD	320 ppm	o o	Ŏ	Õ	0	ō	0		
	800 ppm	0	Ö	0	Ő	ő	Ö		
	2000 ppm	0	0	0	0	0	0		
	2000 ppm	U	U	U	U	U	U		
CRUSTA	Control	0	0	1	1	1	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	1	1		
	2000 ppm	3	3	3	3	4	4		
EMORRHAGE	Control	0	0	0	0	0	0		
ibmorrium ob	320 ppm	0	0	0	0	0	0		
	800 ppm	ŏ	1	1	ő	Ö	i		
	2000 ppm	ő	2	1	1	0	Ô		
TOODAN ID DODAWNING	0 , 1	^	0	^	^	,	2		
IRREGULAR BREATHING	Control	0	0	0	0 .	. 1			
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
OISY	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		
ABNORMAL RESPIRATION	Control	0	0	0	0	1	2		
	320 ppm	0	0	0	0	Ö	0		
	800 ppm	0	0	ő	Ö	0	Ö		
	2000 ppm	0	0	0	0	0	Ö		
	2000 իկու	v	U	U	v	v	V		
TACHYPNEA	Control	0	0	0	0	0	0		
	320 ppm	0	0	0	0	0	0		
	800 ppm	0	0	0	0	0	0		
	2000 ppm	0	0	0	0	0	0		

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-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
EP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Di Didittiti	320 ppm	Ö	Ö	Ö	0	0	0	0	Ó	0	0	0	0	0	0
	800 ppm	0	0	0	0	Õ	Ö	0	0	0	0	0	0	0	0
	2000 ppm	Ö	0	ő	Ö	Ö	ō	0	0	0	0	0	0	0	0
NORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	36	43	44	45	48	49	50	50	50	50	50	50	50
	800 ppm	34	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
ALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

PAGE: 82

linical sign	Group Name	Admini	stration W	eek-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
BEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEI BREATHING	320 ppm	0	0	Õ	0	0	Ō	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	Ō	0	0	0	0
	2000 ppm	0	0	0	0	Ö	o O	0	Ö	0	0	0	0	Ō	0
					•		^	0	0		0	0	0	0	0
NORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0			-		
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
ALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Division I I I I I I I I I I I I I I I I I I I	320 ppm	0	0	Ŏ	Ō	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	Ö	Ö	Ö	ō	ŏ	0	0	0	0	0	0	0	0
	2000 ppm	0	0	Ô	0	ő	0	0	0	0	0	0	0	0	0

BAIS 3

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name	Admin	istration W	eek-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
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ED URINE	Control	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	-0	0	0	0	0	0	0	0	0	0	. 0	0	0	0
ELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-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
					•	•	^	•	٥	^	0	0	0	0	0
EP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	U	U	U	U
ORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0 .	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2000 ppm	50	50	50	50	50	50	50	50	50	50	50	50	50	50
ALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 51002	320 ppm	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	Ö	0	Ō	Ō	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	o	Ō	0	0	ō	0	0	0	0	0	0	0	0
IGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 2100F	320 ppm	0	0	0	0	0	0	Ö	0	Õ	Õ	0	0	0	0
	800 ppm	0	0	0	0	0	0	Ö	Ö	Ŏ	Ō	Ö	Õ	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	Ō	0	0	0	0
	mdd ooos	v	v	V	v	v	•	v	Ť	•	•	•	•	-	
BNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0 ·	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	. 0	0	0	0	. 0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-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
									_				•	•	•
EEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	50	50	50	50	49	49	49	49	47	47	47	47	47	47
	800 ppm	50	50	50	50	50	50	50	50	50	50	50	49	49	49
	2000 ppm	50	50	50	49	49	49	49	49	49	49	49	49	49	49
MALL STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	2	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	1	0	0	16	0	0	0	0	0	0	0	0	0
.IGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	2	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	23	0	0	0	0	0	0	0	0	0
BNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ö	Ö	Ö	0	0	0	0	0	0	0	0	0	0	0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

linical sign	Group Name	Admini	stration W	eek-day											
<u> </u>		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
SEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
•	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	1	0	0	0	0
LLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	47	47	47	47	47	47	47	47	47	4 6	46	46	45	45
	800 ppm	49	49	49	47	47	47	47	46	46	46	46	46	45	45
	2000 ppm	49	49	49	49	49	49	49	49	48	47	47	46	46	45
ALL STOOL	Control	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	1	1	0	0	0	1	0	0	0	1	1	0	0
	2000 ppm	0	0	0	0	0	0	0	1	0	0	1	0	0	0
IGO-STOOL	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	0	0	0	0	0	1	1	1	0	0
	800 ppm	0	1	1	0	0	0	1	0	0	0	1	1	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	1	0	0	0

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 104

SEX : FEMALE

Clinical sign	Group Name	Admini	istration W	eek-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
		•	•	•		•	^	0	0	0	0	0	0	0	0
DEEP BREATHING	Control	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	320 ppm	0	0	0	0	0		0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0 0	0	0 0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	υ	U	U	U	U	U	U	U	U	U	Ų
BNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ō	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW URINE	Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(BLLOW ORTHE	320 ppm	45	45	45	45	45	43	43	43	42	41	41	39	39	39
	800 ppm	45	45	45	45	43	43	42	42	41	41	41	41	41	39
	2000 ppm	45	45	45	45	45	44	43	41	40	39	38	38	37	37
	2000 ppm	4.0	70	10	10	40		10		10	•	•	•		
SMALL STOOL	Control	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	0	0	2
	800 ppm	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	2000 ppm	0	0	0	0	0	0	1	1	0	0	0	0	0	0
DLIGO-STOOL	Control	1	0	0	0	0	0	0	0	0	1	0	0	0	1
	320 ppm	0	0	0	0	1	1	1	1	1	1	1	0	2	2
	800 ppm	0	0	1	1	0	0	0	0	0	0	0	0	2	0
	2000 ppm	0	0	1	0	0	0	0	1	1	0	0	0	0	0
SUBNORMAL TEMP	Control	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	320 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	800 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2000 ppm	Ö	0	0	0	0	0	0	0	0	0	0	0	0	0

CLINICAL OBSERVATION (SUMMARY)

ANIMAL : RAT F344/DuCrj ALL ANIMALS

REPORT TYPE : A1 104

STUDY NO. : 0328

SEX : FEMALE

Clinical sign	Group Name	Admin	istration '	Week-day _				 	 	
		99-7	100-7	101-7	102-7	103-7	104-7			
									 	
				•	•	•	^			
DEEP BREATHING	Control	0	0	0	0	0	0 0			
	320 ppm	0	0	0	0	0				
	mqq 008	0	0	0	0	0	0			
	2000 ppm	0	0	0	0	0	0			
BNORMAL RESPIRA. SOUND	Control	0	0	0	0	0	0			
	320 ppm	0	0	0	0	0	0			
	800 ppm	0	0	0	0	0	0			
	2000 ppm	0	0	0	0	0	0			
DD HDTNIZ	Control	0	0	0	0	0	0			
RED URINE	Control		0	0	0	0	0			
	320 ppm	0		•			0			
	800 ppm	0	0	0	0	0 0				
	2000 ppm	0	0	0	0	U	0			
YELLOW URINE	Control	0	0	0	0	0	0			
	320 ppm	37	37	37	37	36	35			
	800 ppm	39	39	39	39	39	39			
	2000 ppm	37	35	35	35	34	34			
SMALL STOOL	Control	1	4	3	0	0	2			
SMILL STOOD	320 ppm	Ō	1	Ŏ	0	0	ō			
	800 ppm	0	0	0	0	0	0			
		0	0	0	0	0	0			
	2000 ppm	U	υ	U	U	U	U			
LIGO-STOOL	Control	1	2	0	0	4	4			
	320 ppm	0	1	0	0	0	0			
	800 ppm	0	0	0	0	1	1			
	2000 ppm	0	0	0	0	0	0			
SUBNORMAL TEMP	Control	0	0	0	0	1	0			
~ CLUMBE LENG	320 ppm	ő	Ö	Ô	0	ō	0			
	800 ppm	0	0	Ö	Ö	0	0			
	2000 ppm	0	0	0	0	0	0			
	2000 ppm	v	· ·	v	٠	•	v			

APPENDIX B 1

BODY WEIGHT CHANGES :SUMMARY, RAT : MALE (2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

BODY WEIGHT CHANGES (SUMMARY) ALL ANIMALS

up Name	Admini	stration	week											
	0		1		2		3		4		5		6	
Control	123±	4	154±	7	185±	7	209±	8	229±	8	246±	9	260±	10
320 ppm	123±	4	153±	7	184±	8	208±	8	227±	9	242±	10	256±	11
800 ppm	123±	4	152±	6	183±	7	208±	8	226±	9	213±	36**	244±	16**
2000 ppm	123±	4	149±	7**	178±	8**	200±	9**	217±	9**	231±	9**	243±	10**
Significant differe	ence; *: P ≦ (. 05	** : P ≤ 0.0)1			Test of Du	ınnett						

BAIS 3

PAGE: 1

(HAN260)

BODY WEIGHT CHANGES

ALL ANIMALS

ANIMAL : RAT F344/DuCrj UNIT : g

REPORT TYPE : A1 104

SEX : MALE PAGE: 2

(SUMMARY)

oup Name	Admini	istration	week											
	7		8		9		10		11		12		13	
Control	270±	10	281±	10	293±	11	299±	11	307±	12	312±	13	318±	12
320 ppm	268±	12	$279\pm$	13	291±	14	299±	15	306±	15	311±	16	317±	16
800 ppm	262±	12**	275±	11*	286±	11*	295±	11	302±	12	307±	13	312±	12
2000 ppm	255±	10**	$265\pm$	10**	276±	10**	283±	11**	290±	11**	294±	12**	298±	11**
Significant difference	; *: P ≤ 0	0.05 *	: P ≤ 0.0	1			Test of Du	ınnett	-					

(HAN260)

BAIS 3

ANIMAL : RAT F344/DuCrj

UNIT : g REPORT TYPE : A1 104

SEX : MALE

BODY WEIGHT CHANGES (SUMMARY) ALL ANIMALS

PAGE: 3

		Administration week												
	14		18		22		26		30		34		38	
Control	324±	12	344±	14	352±	14	363±	14	373±	16	383±	16	391±	16
320 ppm	323±	17	344±	18	352±	17	366±	17	379±	17	387±	19	394±	18
800 ppm	318±	12	340±	12	348±	14	362±	15	375±	15	383±	17	391±	17
2000 ppm	304±	12**	325±	13**	$332\pm$	13**	345±	13**	356±	13**	364±	14**	371±	14**

(HAN260)

BAIS 3

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

(SUMMARY) BODY WEIGHT CHANGES ALL ANIMALS

up Name	Admini	stration	week											
	42		46		50		54		58		62		66	
Control	394±	16	402±	16	406±	16	409±	17	413±	17	416±	17	418±	17
320 ppm	399±	18	404±	18	408±	19	412±	19	416±	20	418±	20	419±	20
800 ppm	396±	17	401±	18	405±	19	408±	19	411±	20	413±	20	413±	21
2000 ppm	375±	14**	381±	15**	382±	15**	386±	15**	389±	17**	391±	17**	392±	16**
Significant difference;	*: P ≤ 0	.05	** : P ≦ 0.	01			Test of Du	nnett						

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BAIS 3 (HAN260)

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

PAGE: 5

SEX : MALE

up Name	Admini	stration	week											
	70		74		78		82		86		90		94	
Control	421±	19	422±	19	422±	26	421±	23	421±	26	418±	31	416±	29
320 ppm	419±	19	421±	20	418±	27	419±	19	415±	21	411±	21	406±	21
800 ppm	412±	22	414±	22	413±	23	410±	24*	406±	25**	402±	30*	397±	21**
2000 ppm	391±	17**	391±	16**	388±	18**	385±	18**	383±	19**	377±	19**	372±	18**
Significant differer	ıce; *:P≦(). 05 %	r*: P ≤ 0.0	01			Test of D	unnett						

BAIS 3 (HAN260)

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

BODY WEIGHT CHANGES ALL ANIMALS (SUMMARY)

PAGE : 6

roup Name	Admini	istration	week						 	
	98		102		104					
Control	414±	28	405±	33	404±	28				
320 ppm	397±	26***	389±	39	384±					
800 ppm	388±	22**	379±	23**	374±	22**				
pp.										
2000 ppm	361±	21**	351±	28**	350±	26**				
Significant differ	ence; *: P ≦ 0	0.05	**: P ≤ 0.0	01			Test of Dunn	ett		
									 	BATS

(HAN260)

BAIS 3

APPENDIX B 2

BODY WEIGHT CHANGES: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

UNIT : g REPORT TYPE : A1 104

SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)

ALL ANIMALS

up Name	Admini	stration	week											
	0		1		2		3		4		5	5		
Control	97±	4	111±	5	123±	б	131±	6	140±	7	147±	8	152±	8
320 ppm	97±	4	110±	5	121±	5	129±	6	137±	7	144±	7*	149土	8
800 ppm	97±	4	110±	4	122±	5	129±	6	136±	6	142±	7**	147±	8**
2000 ppm	97±	4	108±	5**	117±	6**	124±	6**	130±	7 **	134±	8**	136±	9**

BAIS 3

PAGE: 7

(HAN260)

ANIMAL : RAT F344/DuCrj UNIT : g

REPORT TYPE : A1 104

BODY WEIGHT CHANGES (SUMMARY)

SEX : FEMALE

ALL ANIMALS

ıp Name	Admini													
	7		8		9		10		11	****	12		13	
Control	157±	9	161±	11	165±	11	168±	11	170±	11	171±	11	172土	12
320 ppm	153±	9	155±	9 * *	159±	9**	162±	10*	164±	10*	165±	10*	166±	10**
800 ppm	151±	9**	154±	10**	158±	10**	161±	11**	164±	11*	164土	11**	165±	11**
2000 ppm	140±	8**	142±	9**	145±	9**	147±	10**	149±	10**	150±	10**	151±	10**
Significant difference;	* : P ≤ 0). 05 *	* : P ≤ 0.0)1			Test of D	unnett						

(HAN260)

BAIS 3

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

Manago Car

SEX: FEMALE

oup Name	Adminis	tration	week											
	. 14		18		22		26		30		34	******	38	
Control	174±	12	183±	13	186±	13	191±	14	196±	16	201±	16	203±	17
320 ppm	167±	10**	175±	11**	179±	11**	183±	11*	188±	12**	191±	12**	194±	14*
800 ppm	167±	11**	175±	12**	179±	13*	183±	14**	189±	14*	192±	15**	196±	15*
2000 ppm	152±	10**	158±	10**	161±	10**	164±	12**	169±	13**	171±	12**	173±	13**
														-
Significant differe	ence; *: P ≦ 0.	05	**: P ≤ 0.0	1			Test of D	unnett						

(HAN260)

BAIS 3

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : Al 104

SEX : FEMALE

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

Administration week_ Group Name 54 58 62 66 46 50 235 ± 25 209± 20 213± 20 219± 21 224± 21 230± 23 Control 206± 18 214± 18* 219± 18* $223\pm$ 20* 205± 16* 208± 16** 320 ppm 197± 14* 201± 16* 18** $212\pm$ 19** 216± 20** 220± 22** $208\pm$ 800 ppm 198± 16* 201 ± 16* 204± 17* 182± 16** 186± 17** 186± 17** 190± 19** 175± 13** 177± 14** 179± 14** 2000 ppm Test of Dunnett Significant difference; $*: P \leq 0.05$ ** : $P \leq 0.01$

(HAN260)

BAIS 3

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

BODY WEIGHT CHANGES ALL ANIMALS

(SUMMARY)

ip Name	Administr	ation wee	k											
	70		74		78		82		86		90		94	
Control	242± 26		250±	27	257±	29	261±	30	266±	32	268±	32	269±	32
320 ppm	229± 20	*	236±	21*	242±	21*	244±	22**	249±	20	251±	23**	250±	27**
800 ppm	224± 23	**	231±	24**	236±	25**	240±	30**	243±	23**	246±	24**	249±	25**
2000 ppm	193± 20	**	198±	22**	203±	27**	205±	25**	207±	25**	210±	25**	212±	25**
Significant difference	; $*: P \leq 0.05$	** :	$P \leq 0.$	01			Test of Du	innett						

BAIS 3

PAGE: 11

(HAN260)

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

BODY WEIGHT CHANGES (SUMMARY)

ALL ANIMALS

roup Name	Admini	istration	ı week				
	98		102		104		
			000	0.1	000 +	00	
Control	269±	27	266±	31	263±	30	
320 ppm	248±	29**	254±	22	$254\pm$	23	
800 ppm	250±	27**	252±	28	249±	31	
2000 ppm	211±	26**	213±	26**	213±	26**	
Significant differe	ence; *: P ≦ (0.05	** : P ≤ 0.0)1		Test of Dunnett	
IAN260)							В

BAIS 3

APPENDIX C 1

FOOD CONSUMPTION CHANGES : SUMMARY, RAT : MALE (2-YEAR STUDY)

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

PAGE: 1

roup Name	Administration 1-7(7)	week-day(effective) 2-7(7)	3-7(7)	4-7 (7)	5-7 (7)	6-7(7)	7-7 (7)
Control	13.4± 0.7	14.4± 0.8	15.0± 0.8	15.3± 0.9	15.5± 1.1	15.1± 1.1	15.4± 1.1
320 ppm	13.3± 0.7	14.4± 0.9	15.0± 0.9	15.3± 1.0	15.5± 1.0	15.3± 1.1	15.6± 1.2
800 ppm	13.2± 0.7	14.4± 0.7	15.0± 0.9	15.0± 0.9	11.5± 4.7**	15.9± 1.6*	15.9± 1.3*
2000 ppm	13.0± 0.8**	14.3± 0.8	14.8± 0.9	14.6± 0.9**	14.5士 1.0**	14.4生 0.9**	14.8± 0.9*
							•
Significant difference	; *: P ≤ 0.05	**: P ≤ 0.01		Test of Dunnett			
AN260)							В

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

PAGE: 2

roup 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	15.4± 1.1	15.8± 1.2	15,5± 1.1	15.5± 1.1	15.2± 1.1	15.3± 1.0	15.0± 1.0
320 ppm	15.7± 1.3	16.0± 1.6	15.8± 1.9	15.9± 1.6	15.5± 1.3	15.4± 1.4	15.4± 1.4
800 ppm	15.4± 1.1	15.6± 1.4	15.4± 1.3	15.4± 1.4	15.1± 1.3	15.2± 1.3	15.0± 1.3
2000 ppm	14.7± 0.9**	15.0± 1.0**	14.9± 1.1*	15.1± 1.3	14.9± 1.3	15.0± 1.2	14.8± 1.2
Significant differe	nce; *: P ≤ 0.05 *	**: P ≤ 0.01		Test of Dunnett			
ANIOGO)							

BAIS 3 (HAN260)

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS

up Name	Administratio	on 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	15.3± 1.2	15.8± 1.2	15.6± 1.3	15.4± 1.4	16.1± 1.4	16.0± 1.6	15.8± 1.6
320 ppm	15.9± 1.2	16.2± 1.5	16.6± 1.5**	16.2± 1.5	16.7± 1.7	16.8± 1.9	16.5± 1.7
800 ppm	15.5± 1.5	16.1± 1.8	16.2± 1.7	16.0± 1.8	16.2± 1.6	16.3± 1.7	16.3± 1.9
2000 ppm	15.2± 1.5	15.9± 1.8	16.2± 1.9	16.0± 1.9	16.5± 2.0	16.6± 2.1	16.3± 2.1
Significant difference;	* : P ≤ 0.05	**: P ≤ 0.01		Test of Dunnett			

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS

PAGE: 4

oup Name	Administration 46-7(7)	week-day(effective) 50-7(7)	54-7(7)	58-7 (7)	62-7 (7)	66-7 (7)	70-7 (7)
Control	15.6± 1.8	16.0± 1.7	16.0± 2.0	16.4± 1.8	15.7± 1.5	16.0± 1.6	16.3± 1.5
320 ppm	16.6± 1.8	16.5± 1.9	16.8± 1.9	17.1± 2.0	16.3± 1.7	16.4± 1.9	17.0± 1.9
800 ppm	16.5± 1.9	16.1± 1.8	16.4± 2.0	16.8± 2.2	16.1± 2.0	15.9± 1.8	16.5± 1.7
2000 ppm	16.7± 2.2	16.3± 2.0	16.6± 2.1	16.7± 2.2	16.3± 1.9	16.7± 2.1	16.7± 1.9
Significant difference;	*: P ≤ 0.05	** : P ≤ 0.01		Test of Dunnett			

(HAN260) BAIS 3

ANIMAL : RAT F344/DuCrj UNIT : g

REPORT TYPE : A1 104

SEX : MALE

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS

roup Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7(7)	86-7 (7)	90-7(7)	94-7 (7)	98-7 (7)
Control	15.8± 2.1	16.0± 2.2	15.7± 2.0	15.9± 2.0	15.8± 2.8	15.8± 2.9	16.0± 1.9
320 ppm	17.1± 2.0*	16.2± 2.9	16.2± 2.0	16.5± 2.3	16.7± 2.2	16.5± 2.3	15.9± 3.2
800 ppm	16.5± 2.2	16.4± 2.0	16.1± 2.1	15.9± 2.2	16.3± 2.3	16.2± 2.3	15.8± 2.4
2000 ppm	16.8± 2.2	16.4± 2.2	16.2± 2.2	16.4± 2.5	16.5± 2.5	16.6± 2.9	16.3± 2.6
Significant difference;	*: P ≤ 0.05	** : P ≤ 0.01		Test of Dunnett			
AN260)							I

PAGE: 5

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS

ANIMAL : RAT F344/DuCrj UNIT : g REPORT TYPE : A1 104

SEX : MALE

PAGE: 6

roup Name	Administration 102-7(7)	week-day(effective) 104-7(7)		
Control	15.6± 2.3	15.5± 2.2		
320 ppm	15.9± 3.2	15.7± 2.9		
800 ppm	15.6± 2.3	15.3± 2.0		
2000 ppm	16.3± 2.9	16.3± 2.6		
Significant differe	ence; *: P ≤ 0.05	** : P ≤ 0,01	Test of Dunnett	
ZANGCO)	onco ,	* ***		RATS

(HAN260)

APPENDIX C 2

FOOD CONSUMPTION CHANGES: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS

oup 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	9.9± 0.6	9.8± 0.9	9.8± 0.7	10.3± 0.9	10.5± 0.9	10.1± 0.8	10.4± 0.9
320 ppm	9.6± 0.5	9.8± 0.6	9.6± 0.6	10.1± 0.7	10.1± 0.8	9.9± 0.8	10.2± 1.0
800 ppm	9.6± 0.5*	9.7± 0.6	9.5± 0.7*	9.8± 0.6	9.8± 0.6**	9.7± 0.7**	10.0± 1.2
2000 ppm	9.0± 0.5**	9.1± 0.6**	9.1± 0.7**	9.2± 0.6**	9.1± 0.7**	8.9± 0.7**	9.3± 0.7**
Significant differe	ence; *: P ≤ 0.05 *	*: P ≤ 0.01		Test of Dunnett			
IAN260)							

FOOD CONSUMPTION CHANGES (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 8

oup 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	10.2± 1.0	10.3± 0.9	10.3± 1.0	10.3± 1.0	10.2± 1.0	10.2± 1.0	10.2± 1.2
320 ppm	9.9± 0.9	9.9± 1.0	10.2± 2.1	10.1± 1.0	9.9± 0.8	9.8± 0.9	10.0± 1.2
800 ppm	9.5± 1.1**	9.5± 0.8**	9.6± 0.7**	9.6± 0.7**	9.4± 0.6**	9.7± 1.0*	9.7± 0.8
2000 ppm	8.7± 0.7**	8.8± 0.8**	8.8± 0.8**	8.9± 0.8**	8.8± 0.7**	8.9± 0.6**	9.0± 0.7**
Significant differe	ence; *: P ≤ 0.05	** : P ≤ 0.01		Test of Dunnett			

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY)

ALL ANIMALS ANIMAL : RAT F344/DuCrj

STUDY NO. : 0328 UNIT : g

REPORT TYPE : A1 104

PAGE: 9 SEX : FEMALE

oup 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± 1.2	11.1± 1.7	11.3± 1.8	11.5± 1.7	11.7± 1.9	11.6± 1.7	11.6± 1.7
320 ppm	10.3± 1.1	10.6± 1.2	10.6± 1.3	10.9± 1.5	10.7± 1.3*	11.1± 1.5	11.1± 1.5
800 ppm	10.0± 0.9*	10.2± 0.9*	10.2± 1.0**	10.7± 1.1	10.6± 1.2*	10.9± 1.2	10.8± 1.4*
2000 ppm	9.2± 0.8**	9.6± 1.1**	9.6± 1.1**	9.8± 1.4**	9.8± 1.4**	10.1± 1.5**	9.9± 1.4**
Significant differe	nce; *: P ≤ 0.05	* : P ≤ 0.01		Test of Dunnett			

(HAN260)

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrj

UNIT : g

STUDY NO. : 0328

REPORT TYPE : A1 104

SEX : FEMALE

oup Name	Administration 46-7(7)	week-day(effective) 50-7(7)	54-7(7)	58-7 (7)	62-7(7)	66-7(7)	70-7(7)
Control	12.0± 2.0	12.0± 1.8	12.6± 2.0	12.5± 1.6	12.4± 1.7	12.7± 1.8	13.3± 1.8
320 ppm	11.5± 1.7	11.4± 1.9	11.7± 1.7	12.1± 1.7	11.9± 1.6	12.2± 1.7	12.9± 1.8
800 ppm	11.3± 1.6	11.1± 1.3*	11.4± 1.3*	12.0± 1.6	12.0± 1.4	12.0± 1.5	12.6± 1.5
2000 ppm	10.4± 1.7**	10.3± 1.7**	10.8± 1.9**	11.1± 2.1**	11.7± 2.1	11.2± 2.0**	11.7± 2.0**
Significant differen	ce; *: P ≤ 0.05	**: P ≤ 0.01		Test of Dunnett			

(HAN260)

BAIS 3

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX: FEMALE

roup Name	Administration 74-7(7)	week-day(effective) 78-7(7)	82-7 (7)	86-7 (7)	90-7(7)	94-7(7)	98-7(7)
Control	13.6± 1.8	13.3± 1.8	13.7± 2.1	13.6± 1.9	13.6± 2.1	13.8± 2.5	13.5± 2.5
320 ppm	13.0± 1.9	12.7± 1.7	12.5± 1.9**	12.7± 1.9*	12.5± 2.3	12.7± 2.4	12.6± 3.0
800 ppm	12.7± 1.4	12.6± 2.4	12.7± 1.4*	12.8± 1.5	13.1± 1.8	13.1± 1.4	13.1± 1.5
2000 ppm	11.8± 2.1**	11.6± 1.9**	12.0± 1.9**	12.0± 1.9**	12.0± 2.1**	12.2± 2.0**	12.1± 2.1**
Significant difference;	*: P ≤ 0.05	** : P ≤ 0.01		Test of Dunnett			

PAGE: 11

(HAN260) BAIS 3

ANIMAL : RAT F344/DuCrj

UNIT : g

REPORT TYPE : A1 104

SEX : FEMALE

FOOD CONSUMPTION CHANGES (SUMMARY) ALL ANIMALS

PAGE: 12

Group Name	Administration 102-7(7)	week-day(effective) 104-7(7)		
Control	13.6± 2.5	13.0± 2.5		
320 ppm	13.2± 1.8	13.2± 2.0		
800 ppm	13.2± 1.8	13.1± 1.7		
2000 ppm	12.5± 2.1	12.3± 2.4		
Significant differe	ence; *: P ≤ 0.05	** : P ≤ 0,01	Test of Dunnett	

(HAN260)

APPENDIX D 1

CHEMICAL INTAKE CHANGES: SUMMARY, RAT: MALE

(2-YEAR STUDY)

CHEMICAL INTAKE CHANGES (SUMMARY)
ALL ANIMALS

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : MALE

PAGE: 1

Group Name	Administration	(weeks)						
_	1	2	3	4	5	6	7	
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	
320 ppm	0.028± 0.001	0.025± 0.001	0.023± 0.001	0.022± 0.001	0.020± 0.001	0.019± 0.001	0.019± 0.001	
800 ppm	0.069± 0.002	0.063± 0.002	0.058± 0.003	0.053± 0.003	0.042± 0.013	0.053± 0.007	0.049± 0.004	
2000 ppm	0.174± 0.011	0.160± 0.007	0.148± 0.008	0.134± 0.007	0.126± 0.008	0.118± 0.007	0.116± 0.007	
sooo phw	0.1741 0.011	0. 100 ± 0. 001	V. 140 ± 0. 000	V. 101 - U. 001	V. 120-2		3. 2.3.=	

(HAN300)

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

ODA · MALL						
Group Name	Administration (we	eks)				
group Name		50K3)	4.4	 10	10	1.4

Froup Name	Administration 8	n (weeks)9	10	11	12	13	14
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.018± 0.001	0.018± 0.001	0.017± 0.002	0.017± 0.001	0.016± 0.001	0.015± 0.001	0.015± 0.001
800 ppm	0.045± 0.003	0.044± 0.003	0.042± 0.003	0.041± 0.003	0.040± 0.003	0.039± 0.003	0.038± 0.003
2000 ppm	0.111± 0.006	0.109± 0.008	0.105± 0.008	0.104± 0.009	0.102± 0.008	0.101± 0.008	0.098± 0.008

PAGE: 2

BAIS 3 (HAN300)

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

PAGE: 3

roup Name	Administration	(weeks)					
	18	22	26	30	34	38	42
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.015± 0.001	0.015± 0.001	0.014± 0.001	0.014± 0.001	0.014± 0.001	0.014± 0.002	0.013± 0.001
800 ppm	0.037± 0.003	0.037± 0.004	0.036± 0.003	0.034± 0.004	0.034± 0.003	0.033± 0.003	0.033± 0.004
2000 ppm	0.093± 0.009	0.096± 0.010	0.094± 0.010	0.090± 0.010	0.090± 0.011	0.090± 0.011	0.087± 0.011

(HAN300)

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day REPORT TYPE : A1 104

SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

PAGE: 4

Group Name	Administration	(weeks)					
	46	50	54	58	62	66	70
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.013± 0.002	0.013± 0.002	0.013± 0.002	0.013± 0.002	0.013± 0.001	0.013± 0.002	0.013± 0.002
mqq 008	0.033± 0.004	0.032± 0.004	0.032± 0.004	0.033± 0.004	0.031± 0.004	0.031± 0.004	0.032± 0.004
2000 ppm	0.088± 0.011	0.085± 0.010	0.086± 0.011	0.086± 0.011	0.083± 0.010	0.085± 0.011	0.086± 0.010

(HAN300)

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

roup Name	Administration	(weeks)					. <u></u>
	74	78	82	86	90	94	98
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.013± 0.002	0.012± 0.002	0.012± 0.002	0.013± 0.002	0.013± 0.002	0.013± 0.002	0.013± 0.003
800 ppm	0.032± 0.004	0.032± 0.004	0.031± 0.004	0.032± 0.005	0.033± 0.007	0.033± 0.005	0.032± 0.005
2000 ppm	0.086± 0.011	0.085± 0.012	0.084± 0.012	0.086± 0.013	0.087± 0.013	0.090± 0.016	0.090± 0.014

PAGE: 5

(HAN300) BAIS 3

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day REPORT TYPE : A1 104

SEX : MALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

Group Name	Administration (weeks) 104
Control	0.000± 0.000	0.000± 0.000
320 ppm	0.013± 0.002	0.013± 0.002
800 ppm	0.033± 0.005	0.033± 0.005
2000 ppm	0.094± 0.020	0.094± 0.016

(HAN300)

BAIS 3

APPENDIX D 2

CHEMICAL INTAKE CHANGES : SUMMARY, RAT : FEMALE (2-YEAR STUDY)

STUDY NO.: 0328
ANIMAL: RAT F344/DuCrj
UNIT: g/kg/day
REPORT TYPE: A1 104

SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

PAGE: 7

Administration	(weeks)					
1	2	3	4	5	6	7
0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
0.028± 0.001	0.026± 0.001	0.024± 0.001	0.024± 0.001	0.023± 0.001	0.021± 0.001	0.021± 0.001
0.070± 0.002	0.064± 0.003	0.059± 0.003	0.057± 0.002	0.055± 0.002	0.053± 0.002	0.053± 0.005
0.166± 0.009	0.156± 0.008	0.146± 0.009	0.142± 0.009	0.135± 0.008	0.130± 0.006	0.132± 0.007
	0.000± 0.000 0.028± 0.001 0.070± 0.002	1 2 0.000± 0.000 0.000± 0.000 0.028± 0.001 0.026± 0.001 0.070± 0.002 0.064± 0.003	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 2 3 4 0.000 \pm 0.000 0.000 \pm 0.000 0.000 \pm 0.000 0.000 \pm 0.000 0.028 \pm 0.001 0.026 \pm 0.001 0.024 \pm 0.001 0.024 \pm 0.001 0.070 \pm 0.002 0.064 \pm 0.003 0.059 \pm 0.003 0.057 \pm 0.002	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

BAIS 3 (HAN300)

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

ANIMAL : RAT F344/DuCrj

UNIT : g/kg/day REPORT TYPE : A1 104

SEX : FEMALE

PAGE: 8

Administration	(weeks)					
8	9	10	11	12	13	14
		<i>A</i>				
0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
0.020± 0.001	0.020± 0.001	0.020± 0.004	0.020± 0.001	0.019± 0.001	0.019± 0.001	0.019± 0.002
0.049± 0.005	0.048± 0.003	0.048± 0.003	0.047± 0.003	0.046± 0.002	0.047± 0.004	0.047± 0.003
0.123± 0.007	0.121± 0.007	0.119± 0.007	0.120± 0.007	0.117± 0.007	0.119± 0.007	0.118± 0.008
	8 0.000± 0.000 0.020± 0.001 0.049± 0.005	8 9 0.000± 0.000 0.000± 0.000 0.020± 0.001 0.020± 0.001 0.049± 0.005 0.048± 0.003	8 9 10 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.020± 0.001 0.020± 0.001 0.020± 0.004 0.049± 0.005 0.048± 0.003 0.048± 0.003	8 9 10 11 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.000± 0.000 0.020± 0.001 0.020± 0.001 0.020± 0.004 0.020± 0.001 0.049± 0.005 0.048± 0.003 0.048± 0.003 0.047± 0.003	8 9 10 11 12 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.020 ± 0.001 0.020 ± 0.001 0.020 ± 0.004 0.020 ± 0.001 0.019 ± 0.001 0.049 ± 0.005 0.048 ± 0.003 0.048 ± 0.003 0.047 ± 0.003 0.046 ± 0.002	8 9 10 11 12 13 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.0

(HAN300)

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

Groun	Name	Administration	(weeks)				

Group Name	Administration 18	(weeks)	26	30	34	38	42
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.019± 0.002	0.019± 0.002	0.019± 0.002	0.019± 0.002	0.018± 0.002	0.018± 0.002	0.018± 0.002
800 ppm	0.046± 0.003	0.046± 0.003	0.045± 0.004	0.045± 0.004	0.044± 0.005	0.045± 0.004	0.044± 0.005
2000 ppm	0.116± 0.007	0.119± 0.010	0.118± 0.009	0.115± 0.011	0.115± 0.012	0.116± 0.012	0.113± 0.011

(HAN300)

BAIS 3

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day REPORT TYPE : A1 104

SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

roup Name	Administration	(weeks)					
	46	50	54	58	62	66	70
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
320 ppm	0.018± 0.002	0.018± 0.003	0.018± 0.002	0.018± 0.002	0.017± 0.002	0.017± 0.002	0.018± 0.002
800 ppm	0.045± 0.006	0.044± 0.005	0.044± 0.005	0.045± 0.005	0.045± 0.005	0.044± 0.005	0.045± 0.006
2000 ppm	0.117± 0.015	0.114± 0.013	0.118± 0.015	0.119± 0.016	0.125± 0.017	0.117± 0.013	0.121± 0.014

PAGE: 10

(HAN300) BAIS 3

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day REPORT TYPE : A1 104

SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY) ALL ANIMALS

Administration 74	(weeks) 78	82	86	90	94	98
0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
0.018± 0.002	0.017± 0.002	0.016± 0.002	0.016± 0.002	0.016± 0.003	0.016± 0.003	0.016± 0.004
0.044± 0.006	0.044± 0.006	0.043± 0.006	0.042± 0.006	0.043± 0.007	0.042± 0.006	0.042± 0.006
0.119± 0.014	0.115± 0.013	0.117± 0.012	0.116± 0.012	0.115± 0.015	0.115± 0.014	0.115± 0.013
	0.000± 0.000 0.018± 0.002 0.044± 0.006	74 78 0.000 ± 0.000 0.000 ± 0.000 0.018 ± 0.002 0.017 ± 0.002 0.044 ± 0.006 0.044 ± 0.006	74 78 82 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.018 ± 0.002 0.017 ± 0.002 0.016 ± 0.002 0.044 ± 0.006 0.044 ± 0.006 0.043 ± 0.006 0.119 ± 0.014 0.115 ± 0.013 0.117 ± 0.012	74 78 82 86 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.018 ± 0.002 0.017 ± 0.002 0.016 ± 0.002 0.016 ± 0.002 0.044 ± 0.006 0.044 ± 0.006 0.043 ± 0.006 0.042 ± 0.006 0.119 ± 0.014 0.115 ± 0.013 0.117 ± 0.012 0.116 ± 0.012	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

(HAN300)

BAIS 3

ANIMAL : RAT F344/DuCrj UNIT : g/kg/day

REPORT TYPE : A1 104

SEX : FEMALE

CHEMICAL INTAKE CHANGES (SUMMARY)

ALL ANIMALS

Group Name	Administration 102	(weeks) 104
Control	0.000± 0.000	0.000± 0.000
320 ppm	0.017± 0.002	0.017± 0.002
800 ppm	0.043± 0.007	0.042± 0.007
2000 ppm	0.117± 0.013	0.116± 0.015

(HAN300)

BAIS 3

APPENDIX E 1

HEMATOLOGY: SUMMARY, RAT: MALE

(2-YEAR STUDY)

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

MEASURE. TIME: 1

SEX: MALE REPORT TYPE: A1

oup Name	NO. of Animals	RED BLOOD CELL 1 O ^s /µl	HEMOGLOBIN g/dl	HEMATOCRIT %	MCV f l	MCH pg	MCHC g∕dl	PLATELET 1 0³/µl	
Control	40	8.21± 1.25	13.6± 2.4	41.4± 6.2	50.5± 2.9	16.5± 1.2	32.7± 1.3	840± 242	
320 ppm	41	8.20± 1.73	13.4± 2.7	40.9± 7.2	51.0± 7.3	16.6± 2.2	32.7± 1.3	821± 242	
800 ppm	41	8.62± 1.52	14.1± 2.3	42.8± 6.0	50.2± 5.5**	16.4± 1.4	32.8± 1.5	858± 217	
2000 ppm	39	8.86± 1.69	14.1± 2.7	42.7 ± 7.7	48.3± 1.8**	15.9± 0.6**	32.9± 1.1	833± 111	

(HCL070) BAIS 3

ANIMAL : RAT F344/DuCrj

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : MALE REPORT TYPE : A1

	Animals	%	
Control	40	0.4± 0.2	
320 ppm	41	0.4± 0.2	
800 ppm	41	0.4± 0.4	
2000 ppm	39	0.4± 0.3	

(HCL070)

BAIS 3

ANIMAL : RAT F344/DuCrj

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : A1

PAGE: 3

roup Name	NO. of Animals	₩BC 1 0³/		Dif N-BAND	ferentia	1 WBC (% N-SEG	6)	EOSINO		BASO		MONO		LYMPHO		OTHER	
Control	40	7.37±	5, 53	1±	1	50±	14	1±	1	0±	0	3±	2	40±	11	4±	13
320 ppm	41	10.56±	14. 39	1±	1	49±	16	1±	1	0±	0	3±	1	39±	15	8±	21
800 ppm	41	8.32±	10.62	1±	1	53±	11	1±	1	0±	0	3±	2	38±	10	4 ±	14
2000 ppm	39	7.08±	2. 25	1±	1	55±	11	1±	1	0±	0	3±	2	38±	10	2±	2
	difference			 ** : P ≤				•	of Dunr							_	
																	BAIS 3

(HCL070)

APPENDIX E 2

HEMATOLOGY: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

HEMATOLOGY (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 4

oup Name	NO. of Animals	RED BL	ood cell	HEMOGLO g/dl	BIN	HEMATOC %	RIT	MCV f l		MCH pg		MCHC g/dl		PLATELET 1 0³/µl	
Control	38	8.09±	1.30	14.6±	2. 2	43. 2±	5.8	54.5±	7.8	18.2±	1. 1	33.6±	1.7	624±	122
320 ppm	34	8.21±	1.10	14.5±	1.6	43.0±	3. 9	53.1±	6. 2	17.9±	1.8	33.7±	0.8	682±	131
mqq 008	38	8.03±	0.99	14.3±	1.6*	42.3±	4.5	53.0±	4.7*	17.8±	1.2**	33.6±	0.8	661±	127
2000 ppm	34	7.99±	1. 51	13.6±	2. 7**	40.9±	7.1**	51.5±	2.2**	17.0±	0.9**	33.0±	2. 2	664±	99

(HCL070)

ANIMAL : RAT F344/DuCrj

MEASURE. TIME: 1

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

SEX : FEMALE REPORT TYPE : A1

NO. of METHEMOGLOBIN Group Name % Animals Control 38 0.3 ± 0.2 0.3 ± 0.2 320 ppm 34 0.3 ± 0.2 800 ppm 38 2000 ppm 0.4± 0.3 34 Significant difference; * : P ≤ 0.05 Test of Dunnett ** : P ≤ 0.01

PAGE: 5

(HCL070) BAIS 3

ANIMAL : RAT F344/DuCrj

MEASURE. TIME: 1 SEX : FEMALE

REPORT TYPE : A1

HEMATOLOGY (SUMMARY) ALL ANIMALS (105W)

Differential WBC (%) NO. of WBC Group Name LYMPHO OTHER 10³/µl BASO MONO Animals N-BAND N-SEG EOSINO 4土 14 $2\pm$ $0\pm$ $3\pm$ 2 41土 11 49± 12 Control 38 7.22 ± 28.68 $1\pm$ 1 4± 13 $2\pm$ $0\pm$ $3\pm$ $45\pm$ 13 320 ppm 34 $2.82\pm$ 2.59 $1\pm$ 1 $45\pm$ 14 0± $3\pm$ 13 $2\pm$ $3\pm$ 2 46± 13 46± 1 0 $1\pm$ 11 800 ppm 38 $3.65\pm$ 8.71 1 $1\pm$ 2 0± $3\pm$ 2 $45\pm$ $1\pm$ 1 $49\pm$ 10 $2\pm$ 1 0 2000 ppm 34 2.42 ± 1.85 Test of Dunnett Significant difference; $*: P \leq 0.05$ ** : $P \leq 0.01$ BAIS 3

PAGE: 6

(HCL070)

APPENDIX F 1

BIOCHEMISTRY: SUMMARY, RAT: MALE

ANIMAL : RAT F344/DuCrj

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : A1

PAGE: 1

up Name	NO. of Animals	TOTAL P g/dl	ROTEIN	ALBUMIN g/dl		A/G RAT		T-BILII mg/dl	RUBIN	GLUCOSE mg/dl		T-CHOLES mg/dl	STEROL	TRIGLYCH mg/dl	BRIDE
Control	40	6.5±	0.3	3.3±	0.2	1.1±	0.1	0.19±	0.10	149±	17	175±	50	80±	61
320 ppm	41	6.6±	0.4	3.3±	0.3	1.0±	0.1	0.34±	0.63	143±	21	187±	45	103±	79
800 ppm	41	6.6±	0.3	3.3±	0.2	1.0±	0.1	0.20±	0.17	148±	13	219±	45**	125±	70*
2000 ppm	39	6.5±	0.3	3.3±	0.2	1.0±	0.1*	0.15±	0.03	149±	23	217±	51**	146±	79**

(HCL074)

BAIS 3

BIOCHEMISTRY (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : A1

PAGE: 2

oup Name	NO. of Animals	PHOSPHOI mg/dl	LIPID	GOT IU/A		GPT IU/£	!	LDH IU/&	!	ALP IU/A	!	G-GTP IU/l		CPK IU/J	2
Control	40	245生	76	85±	43	38±	17	184±	87	205±	86	12±	8	88±	28
320 ppm	41	267±	61	243±	774	70±	154	373±	765	286±	539	25±	33*	147±	307
800 ppm	41	299±	55**	92±	50	40±	15	166±	71	263±	373	31±	24**	85±	29
2000 ppm	39	312±	63**	113±	123	49±	49	165±	78	201±	178	38±	21**	82±	49*

(HCL074)

BAIS 3

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrj MEASURE. TIME : 1

SEX : MALE

REPORT TYPE : A1

PAGE: 3

oup Name	NO. of Animals	urea ni mg/dl		CREATIN mg/dl	INE	SODIUM m Eq / l		POTASSI m Eq / s		CHLORIDE m Eq / l		CALCIUM mg/dl		INORGAN mg/dl	IC PHOSPHORUS
Control	40	17.2±	3. 4	0.6±	0.1	142±	2	3.8±	0.4	106±	2	10.5±	0, 3	4.3±	0, 5
320 ppm	41	20.7±	10.9	0.6±	0.1	142±	3	3.9±	0.4	107±	3	10.5±	0.5	4.5±	1. 1
800 ppm	41	23.8±	5. 1**	0.7±	0.1**	142±	2	3.9±	0.4	106±	2	10.6±	0.4	4.4±	0.6
2000 ppm	39	30.7±	9.6**	0.7±	0.1**	141±	2	3.9±	0.3	105±	2	10.7±	0.2**	4.6±	0.6

(HCL074) BAIS 3

APPENDIX F 2

BIOCHEMISTRY: SUMMARY, RAT: FEMALE

ANIMAL : RAT F344/DuCrj

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 4

up Name	NO. of Animals	TOTAL P g/dl	PROTEIN	ALBUMIN g/dl		A/G RAT	10	T-BILII mg/dl		GLUCOSE mg/dl		T-CHOLE:	STEROL	TRIGLYC mg/dl	ERIDE
Control	38	6.6±	0.5	3.8±	0.3	1.4±	0.1	0.45±	1.89	145±	18	126±	21	44±	31
320 ppm	34	6.7±	0.3	3.9±	0.2	1.4±	0.1	0.15±	0.08	153±	15	149±	25**	53±	47
800 ppm	38	6.9±	0.4**	4.0±	0.3*	1.4±	0.1	0.14±	0.02	153±	15	165±	25**	55±	53
2000 ppm	34	7.0±	0.4**	4.1±	0.2**	1.4±	0.1	0.14±	0.03	158±	11**	175±	24**	60±	113

(HCL074)

BAIS 3

BIOCHEMISTRY (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (105W)

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

PAGE: 5

oup Name	NO. of Animals	PHOSPHOI mg/dl	LIPID	GOT IU/£		GPT I U/l		LDH IU/	2	ALP IU/s	2	G-GTP IU/l		CPK IU/J	2
Control	38	222生	45	141±	194	59±	66	384±	919	129±	168	5±	5	123±	173
320 ppm	34	251±	43**	116±	86	54±	29	240±	172	113±	44	7±	4**	106±	86
800 ppm	38	275±	40**	114生	61	54±	28	215±	97	104±	37	8±	3**	82±	25
2000 ppm	34	292±	33**	108±	44	55±	24	193±	68	109±	53	10±	5**	78±	22

(HCL074) BAIS 3

BIOCHEMISTRY (SUMMARY) ALL ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

MEASURE. TIME : 1 SEX : FEMALE PAGE: 6 REPORT TYPE : A1

oup Name	NO. of Animals	UREA NI mg∕dl	TROGEN	CREATIN mg∕dl	INE	SODIUM m Eq / l		POTASSI m Eq / J		CHLORIDE m Eq / l		CALCIUM mg/dl	[INORGAN mg/dl	VIC PHOSPHORU
Control	38	16.3±	3.6	0.5±	0.1	141±	2	3.6±	0.4	105±	2	10.4±	0.2	4.1±	0.7
320 ppm	34	17.4±	2.0*	0.5±	0.1	141±	2	3.6±	0.3	105±	2	10.5±	0.3	4.0±	0.8
800 ppm	38	17.8±	2.1**	0.5±	0.1	141±	2	3.6±	0.3	104±	2	10.5±	0.3*	3.9±	0.7
2000 ppm	34	19.4±	2. 2**	0.5±	0.1	140±	2	3.7±	0.3	105±	2	10.6±	0.3**	4.0±	0.7

BAIS 3 (HCL074)

APPENDIX G 1

URINALYSIS : SUMMARY, RAT : MALE

URINALYSIS

ANIMAL : RAT F344/DuCrj

MEASURE. TIME: 1

SEX : MALE

REPORT TYPE : A1

oup Name	NO. of	_Hq								Pr	otei	n_				G1	ucos	e			Keto	ne l	body				0c	cult	blo	bc	
	Animals	5. 0	6.0	6. 5	7. 0	7.5	8.0	8.5	CHI	_	±	+	2+ 3	3+ 4+	CHI	_	±	+ 2	+ 3+	4+ CHI	- :	± +	- 2+	3+ 4	4+	CHI	_	土	+ 2	+ 3+	CHI
Control	40	0	0	3	11	10	9	7		0	0	0	7 :	20 13		40	0	0	0 0	0	32	7	1 0	0	0		40	0	0	0 0	
320 ppm	44	0	1	4	10	14	12	3		0	0	0	2 :	27 15		44	0	0	0 0	0	34	9	1 0	0	0		43	0	0	0 1	
800 ppm	41	0	0	4	8	15	14	0	*	0	0	0	2 :	29 10		41	0	0	0 0	0	40	1	0 0	0	0	*	41	0	0	0 0	
2000 ppm	42	0	1	6	18	11	4	2		0	0	0	0 :	35 7	**	42	0	0	0 0	0	42	0	0 0	0	0	**	41	0	1	0 0	

PAGE: 1

(HCL101) BAIS 3

URINALYSIS

ANIMAL : RAT F344/DuCrj

MEASURE, TIME: 1

roup Name	NO. of Animals	Urobilinogen ± + 2+ 3+ 4+ CHI		
Control	40	40 0 0 0 0		
320 ppm	44	44 0 0 0 0		
mqq 008	41	41 0 0 0 0		
2000 ppm	42	42 0 0 0 0		
Significan	t difference	; *: P ≤ 0.05 **: P ≤ 0.01	Test of CHI SQUARE	

BAIS 3

(HCL101)

APPENDIX G 2

URINALYSIS: SUMMARY, RAT: FEMALE

ANIMAL : RAT F344/DuCrj

MEASURE. TIME: 1

SEX : FEMALE REPORT TYPE : A1

URINALYSIS

oup Name	NO. of	pH_							Protein	Glucose	Ketone body	Occult blood
	Animals	5. 0	6.0	6.5	7.0	7.5	8.0	8.5 CHI	- ± + 2+ 3+ 4+ CHI	- ± + 2+ 3+ 4+ CHI	- ± + 2+ 3+ 4+ CHI	— ± + 2+ 3+ CHI
Control	38	0	2	11	6	7	9	3	0 0 10 19 7 2	38 0 0 0 0 0	10 25 3 0 0 0	38 0 0 0 0
320 ppm	36	0	1	8	10	5	10	2	0 1 9 19 3 4	36 0 0 0 0 0	15 20 1 0 0 0	35 0 0 0 1
800 ppm	38	0	0	7	4	10	15	2	0 0 7 22 5 4	38 0 0 0 0 0	26 11 1 0 0 0 **	35 0 1 0 2
2000 ppm	34	0	0	7	7	7	12	1	0 2 13 17 1 1	34 0 0 0 0 0	33 1 0 0 0 0 **	31 2 0 0 1

PAGE: 3

BAIS 3 (HCL101)

URINALYSIS

ANIMAL : RAT F344/DuCrj

MEASURE. TIME: 1

SEX : FEMALE

REPORT TYPE : A1

NO. of Urobilinogen ± + 2+ 3+ 4+ CHI Group Name Animals 37 1 0 0 0 Control 36 36 0 0 0 0 320 ppm 800 ppm 38 38 0 0 0 0

Significant difference ; $*: P \leq 0.05$

34

34 0 0 0 0

** : $P \leq 0.01$

Test of CHI SQUARE

(HCL101)

2000 ppm

BAIS 3

APPENDIX H 1

GROSS FINDINGS: SUMMARY, RAT: MALE ALL ANIMALS

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

en	Findings	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
n/app	noduIe	4 (8)	7 (14)	10 (20)	7 (14)
	mass	0 (0)	0 (0)	1 (2)	0 (0)
	scab	0 (0)	1 (2)	0 (0)	0 (0)
ocutis	edema	0 (0)	0 (0)	0 (0)	1 (2)
	jaundice	0 (0)	1 (2)	0 (0)	0 (0)
	mass	5 (10)	6 (12)	2 (4)	5 (10)
	cyst	0 (0)	0 (0)	1 (2)	0 (0)
sal cavit	hemorrhage	0 (0)	0 (0)	0 (0)	1 (2)
ng	red	0 (0)	0 (0)	0 (0)	1 (2)
	white zone	1 (2)	1 (2)	0 (0)	1 (2)
	red zone	0 (0)	0 (0)	0 (0)	1 (2)
	brown zone	0 (0)	0 (0)	1 (2)	0 (0)
	edema	0 (0)	0 (0)	0 (0)	1 (2)
	nodule	1 (2)	1 (2)	1 (2)	1 (2)
	voluminus	1 (2)	0 (0)	0 (0)	0 (0)
nph node	enlarged	0 (0)	1 (2)	0 (0)	1 (2)
leen	enlarged	6 (12)	11 (22)	6 (12)	1 (2)
	adhesion	0 (0)	0 (0)	1 (2)	0 (0)
art	white	1 (2)	0 (0)	0 (0)	0 (0)
	white zone	1 (2)	0 (0)	1 (2)	0 (0)
l cavity	mass	0 (0)	0 (0)	0 (0)	1 (2)
gue	nodule	0 (0)	0 (0)	0 (0)	1 (2)

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

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
orestomach	nodule	1 (2)	0 (0)	0 (0)	0 (0)
	ulcer	0 (0)	0 (0)	1 (2)	0 (0)
gl stomach	nodule	0 (0)	0 (0)	2 (4)	1 (2)
tomach	gas	0 (0)	0 (0)	0 (0)	1 (2)
mall intes	red zone	. 0 (0)	0 (0)	1 (2)	0 (0)
	gas	0 (0)	0 (0)	0 (0)	1 (2)
iver	enlarged	0 (0)	0 (0)	2 (4)	0 (0)
	pale	0 (0)	0 (0)	0 (0)	1 (2)
	white zone	0 (0)	1 (2)	0 (0)	1 (2)
	nodule	0 (0)	2 (4)	2 (4)	8 (16)
	rough	2 (4)	6 (12)	3 (6)	0 (0)
	nodular	0 (0)	0 (0)	0 (0)	1 (2)
	herniation	2 (4)	3 (6)	6 (12)	3 (6)
ancreas	nodule	0 (0)	1 (2)	0 (0)	0 (0)
idney	enlarged	0 (0)	1 (2)	0 (0)	0 (0)
	nodule	0 (0)	1 (2)	0 (0)	2 (4)
	cyst	0 (0)	1 (2)	0 (0)	0 (0)
	granular	7 (14)	10 (20)	27 (54)	32 (64)
	adhesion	0 (0)	0 (0)	1 (2)	0 (0)
rin bladd	urine:marked retention	0 (0)	1 (2)	0 (0)	0 (0)
	urine:red	1 (2)	1 (2)	0 (0)	1 (2)
oituitary	enlarged	6 (12)	4 (8)	6 (12)	2 (4)

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

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

MALS (V 100H)

gan	Findings	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
uitary	red zone	4 (8)	7 (14)	1 (2)	3 (6)
	black zone	2 (4)	3 (6)	1 (2)	2 (4)
	nodule	0 (0)	1 (2)	1 (2)	1 (2)
	cyst	1 (2)	1 (2)	1 (2)	0 (0)
roid	enlarged	4 (8)	6 (12)	4 (8)	4 (8)
	nodule	1 (2)	0 (0)	0 (0)	1 (2)
ena1	enlarged	2 (4)	2 (4)	1 (2)	1 (2)
tis	atrophic	2 (4)	0 (0)	0 (0)	1 (2)
	red	0 (0)	1 (2)	0 (0)	0 (0)
	nodule	24 (48)	36 (72)	33 (66)	33 (66)
/cli gl	nodule	3 (6)	1 (2)	1 (2)	4 (8)
n	red zone	0 (0)	0 (0)	1 (2)	1 (2)
	hemorrhage	0 (0)	0 (0)	2 (4)	0 (0)
al cord	red zone	0 (0)	0 (0)	1 (2)	0 (0)
	hemorrhage	0 (0)	0 (0)	1 (2)	0 (0)
	white	4 (8)	1 (2)	4 (8)	8 (16)
al gl	nodule	0 (0)	0 (0)	0 (0)	4 (8)
	nodulo	1 (2)	0 (0)	0 (0)	0 (0)
ra	nodule	0 (0)	1 (2)	1 (2)	0 (0)
toneum	hemorrhage	0 (0)	1 (2)	0 (0)	0 (0)
	nodule	2 (4)	0 (0)	2 (4)	3 (6)
	mass	1 (2)	0 (0)	0 (0)	0 (0)

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

T TYPE : A1

	NO. of Animals 50 (%)	50 (%)	50 (%)	50 (%)
mass	1 (2)	1 (2)	0 (0)	1 (2)
ascites	2 (4)	2 (4)	2 (4)	1 (2)
nodule	0 (0)	1 (2)	0 (0)	1 (2)
hemorrhage	0 (0)	0 (0)	1 (2)	0 (0)
pleural fluid	0 (0)	1 (2)	1 (2)	3 (6)
scab	5 (10)	13 (26)	8 (16)	5 (10)
tail:nodule	1 (2)	1 (2)	2 (4)	2 (4)
hindlimb:nodule	2 (4)	0 (0)	0 (0)	0 (0)
anemic	0 (0)	0 (0)	1 (2)	0 (0)
1	ascites nodule nemorrhage pleural fluid scab tail:nodule hindlimb:nodule	2 (4) 10 10 10 10 10 10 10 1	ascites 2 (4) 2 (4) nodule 0 (0) 1 (2) nemorrhage 0 (0) 0 (0) pleural fluid 0 (0) 1 (2) scab 5 (10) 13 (26) tail:nodule 1 (2) 1 (2) hindlimb:nodule 2 (4) 0 (0)	2 (4) 2 (4) 2 (4) 2 (4) 2 (4) 3 (4)

(HPT080)

BAIS 3

APPENDIX H 2

GROSS FINDINGS: SUMMARY, RAT: FEMALE ALL ANIMALS

. 0320

ANIMAL : RAT F344/DuCrj

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

REPORT TYPE : A1

SEX : FEMALE

gan	Findings	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
in/app	nodule	1 (2)	0 (0)	0 (0)	1 (2)
	scab	0 (0)	1 (2)	0 (0)	1 (2)
ocutis	edema	0 (0)	0 (0)	0 (0)	1 (2)
	jaundice	1 (2)	2 (4)	1 (2)	0 (0)
	mass	10 (20)	7 (14)	6 (12)	12 (24)
ng	red	0 (0)	0 (0)	0 (0)	1 (2)
	white zone	1 (2)	0 (0)	0 (0)	2 (4)
	red zone	0 (0)	0 (0)	1 (2)	0 (0)
	brown zone	0 (0)	0 (0)	1 (2)	0 (0)
	edema	0 (0)	1 (2)	0 (0)	0 (0)
	nodule	0 (0)	2 (4)	2 (4)	2 (4)
ph node	enlarged	0 (0)	1 (2)	1 (2)	1 (2)
ееп	enlarged	5 (10)	9 (18)	3 (6)	5 (10)
	deformed	0 (0)	0 (0)	0 (0)	1 (2)
	adhesion	0 (0)	1 (2)	1 (2)	0 (0)
ngue	nodule	0 (0)	0 (0)	1 (2)	0 (0)
restomach	nodule	0 (0)	0 (0)	0 (0)	1 (2)
	ulcer	1 (2)	2 (4)	0 (0)	0 (0)
stomach	ulcer	0 (0)	1 (2)	0 (0)	0 (0)
um	red zone	0 (0)	1 (2)	0 (0)	0 (0)
er	pale	0 (0)	1 (2)	0 (0)	1 (2)
	black patch	0 (0)	0 (0)	1 (2)	0 (0)

ANIMAL : RAT F344/DuCrj

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

REPORT TYPE : A1

SEX : FEMALE

organ	Findings	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
.iver	white zone	1 (2)	0 (0)	1 (2)	0 (0)
	nodule	0 (0)	1 (2)	1 (2)	3 (6)
	rough	1 (2)	3 (6)	0 (0)	0 (0)
	nodular	1 (2)	0 (0)	0 (0)	0 (0)
	herniation	5 (10)	9 (18)	4 (8)	4 (8)
ancreas	nodule	0 (0)	0 (0)	1 (2)	1 (2)
idney	white zone	0 (0)	2 (4)	0 (0)	0 (0)
	brown zone	0 (0)	0 (0)	0 (0)	1 (2)
	cyst	1 (2)	0 (0)	0 (0)	0 (0)
	granular	0 (0)	1 (2)	1 (2)	0 (0)
	hydronephrosis	0 (0)	0 (0)	1 (2)	1 (2)
: rin bladd	red zone	0 (0)	2 (4)	0 (0)	1 (2)
	urine:marked retention	0 (0)	1 (2)	0 (0)	2 (4)
	fluid:red	0 (0)	0 (0)	0 (0)	1 (2)
ituitary	énlarged	8 (16)	6 (12)	5 (10)	5 (10)
	red zone	8 (16)	4 (8)	4 (8)	10 (20)
	brown zone	1 (2)	0 (0)	0 (0)	0 (0)
	black zone	2 (4)	3 (6)	2 (4)	1 (2)
	nodule	1 (2)	5 (10)	2 (4)	2 (4)
	cyst	0 (0)	1 (2)	1 (2)	1 (2)
hyroid	enlarged	0 (0)	2 (4)	2 (4)	0 (0)
	nodule	0 (0)	1 (2)	0 (0)	0 (0)

ANIMAL : RAT F344/DuCrj

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

REPORT TYPE : A1

*---

SEX : FEMALE

rgan	Findings	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
drenal	enlarged	3 (6)	1 (2)	2 (4)	0 (0)
vary	enlarged	1 (2)	2 (4)	1 (2)	0 (0)
	cyst	1 (2)	1 (2)	0 (0)	1 (2)
terus	enlarged	0 (0)	1 (2)	0 (0)	0 (0)
	nodule	6 (12)	6 (12)	7 (14)	12 (24)
	cyst	1 (2)	0 (0)	0 (0)	0 (0)
	deformed	0 (0)	0 (0)	0 (0)	1 (2)
	dilated lumen	0 (0)	1 (2)	0 (0)	0 (0)
	fluid:red	0 (0)	0 (0)	1 (2)	0 (0)
agina	nodule	0 (0)	0 (0)	1 (2)	0 (0)
rep/cli gl	nodule	1 (2)	0 (0)	0 (0)	1 (2)
rain	swollen	1 (2)	0 (0)	0 (0)	0 (0)
	red zone	1 (2)	1 (2)	0 (0)	1 (2)
	hemorrhage	0 (0)	1 (2)	0 (0)	1 (2)
	nodule	1 (2)	0 (0)	0 (0)	0 (0)
pinal cord	red zone	0 (0)	2 (4)	0 (0)	1 (2)
	hemorrhage	0 (0)	1 (2)	0 (0)	1 (2)
	nodule	0 (0)	1 (2)	0 (0)	0 (0)
ye	white	5 (10)	4 (8)	2 (4)	0 (0)
ymbal gl	nodule	1 (2)	0 (0)	0 (0)	0 (0)
eritoneum	nodule	1 (2)	1 (2)	2 (4)	1 (2)
	mass	1 (2)	0 (0)	0 (0)	0 (0)

GROSS FINDINGS (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

PAGE: 8

Organ	Findings_	Group Name Control NO. of Animals 50 (%)	320 ppm 50 (%)	800 ppm 50 (%)	2000 ppm 50 (%)
etroperit	mass	0 (0)	0 (0)	1 (2)	0 (0)
bdominal c	mass	0 (0)	0 (0)	0 (0)	1 (2)
	ascites	0 (0)	1 (2)	0 (0)	4 (8)
horacic ca	nodule	0 (0)	0 (0)	1 (2)	0 (0)
	pleural fluid	0 (0)	0 (0)	1 (2)	2 (4)
ther	scab	0 (0)	0 (0)	1 (2)	3 (6)
	tail:nodule	0 (0)	0 (0)	1 (2)	1 (2)
nhole body	anemic	0 (0)	0 (0)	1 (2)	3 (6)

BAIS 3

(HPT080)

APPENDIX H 3

GROSS FINDINGS : SUMMARY, RAT : MALE SACRIFICED ANIMALS

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

gan	Findings	Group Name Control NO. of Animals 40 (%)	320 ppm 44 (%)	800 ppm 41 (%)	2000 ppm 39 (%)
in/app	nodule	2 (5)	7 (16)	9 (22)	6 (15)
	mass	0 (0)	0 (0)	1 (2)	0 (0)
bcutis	jaundice	0 (0)	1 (2)	0 (0)	0 (0)
	mass	5 (13)	5 (11)	0 (0)	3 (8)
	cyst	0 (0)	0 (0)	1 (2)	0 (0)
ıg	white zone	1 (3)	1 (2)	0 (0)	0 (0)
	brown zone	0 (0)	0 (0)	1 (2)	0 (0)
	nodule	1 (3)	1 (2)	0 (0)	0 (0)
een	enlarged	3 (8)	8 (18)	3 (7)	0 (0)
	adhesion	0 (0)	0 (0)	1 (2)	0 (0)
ırt	white zone	1 (3)	0 (0)	0 (0)	0 (0)
al cavity	mass	0 (0)	0 (0)	0 (0)	1 (3)
igue	nodule	0 (0)	0 (0)	0 (0)	1 (3)
restomach	nodule	1 (3)	0 (0)	0 (0)	0 (0)
	ulcer	0 (0)	0 (0)	1 (2)	0 (0)
stomach	nodule	0 (0)	0 (0)	2 (5)	0 (0)
/er	enlarged	0 (0)	0 (0)	1 (2)	0 (0)
	white zone	0 (0)	1 (2)	0 (0)	1 (3)
	nodule	0 (0)	2 (5)	2 (5)	6 (15)
	rough	2 (5)	6 (14)	1 (2)	0 (0)
	herniation	2 (5)	2 (5)	6 (15)	2 (5)
ncreas	nodule	0 (0)	1 (2)	0 (0)	0 (0)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1
SEX : MALE

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

gan	Findings_	Group Name Control NO. of Animals 40 (%)	320 ppm 44 (%)	800 ppm 41 (%)	2000 ppm 39 (%)
dney	nodule	0 (0)	1 (2)	0 (0)	1 (3)
	cyst	0 (0)	1 (2)	0 (0)	0 (0)
	granular	7 (18)	9 (20)	23 (56)	30 (77)
	adhesion	0 (0)	0 (0)	1 (2)	0 (0)
tuitary	enlarged	3 (8)	3 (7)	2 (5)	2 (5)
	red zone	4 (10)	7 (16)	0 (0)	3 (8)
	black zone	2 (5)	3 (7)	1 (2)	2 (5)
	nodule	0 (0)	1 (2)	1 (2)	0 (0)
	cyst	1 (3)	1 (2)	1 (2)	0 (0)
yroid	enlarged	4 (10)	5 (11)	4 (10)	4 (10)
	nodulo	1 (3)	0 (0)	0 (0)	1 (3)
renal	enlarged	1 (3)	2 (5)	1 (2)	1 (3)
stis	red	0 (0)	1 (2)	0 (0)	0 (0)
	nodule	23 (58)	34 (77)	28 (68)	31 (79)
ep/cli gl	nodule	2 (5)	1 (2)	1 (2)	3 (8)
е	white	3 (8)	1 (2)	4 (10)	7 (18)
mbal gl	nodule	0 (0)	0 (0)	0 (0)	3 (8)
ritoneum	nodule	1 (3)	0 (0)	1 (2)	1 (3)
troperit	mass	1 (3)	1 (2)	0 (0)	1 (3)
dominal c	ascites	1 (3)	1 (2)	1 (2)	0 (0)
her	scab	5 (13)	13 (30)	8 (20)	5 (13)
	tail:nodule	1 (3)	1 (2)	2 (5)	2 (5)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

SEX : MALE

PAGE: 3

gan	Findings	Group Name Control NO. of Animals 40 (%)	320 ppm 44 (%)	800 ppm 41 (%)	2000 ppm 39 (%)
her	hindlimb:nodule	1 (3)	0 (0)	0 (0)	0 (0)

(080TqH)

APPENDIX H 4

GROSS FINDINGS : SUMMARY, RAT : FEMALE SACRIFICED ANIMALS

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 SEX : FEMALE

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

gan	Findings	Group Name Control NO. of Animals 38 (%)	320 ppm 35 (%)	800 ppm 39 (%)	2000 ppm 34 (%)
in/app	nodule	1 (3)	0 (0)	0 (0)	1 (3)
	scab	0 (0)	0 (0)	0 (0)	I (3)
cutis	jaundice	1 (3)	0 (0)	0 (0)	0 (0)
	mass	7 (18)	6 (17)	3 (8)	5 (15)
R	white zone	1 (3)	0 (0)	0 (0)	2 (6)
	brown zone	0 (0)	0 (0)	1 (3)	0 (0)
een	enlarged	2 (5)	2 (6)	1 (3)	1 (3)
ngue	nodule	0 (0)	0 (0)	1 (3)	0 (0)
estomach	nodule	0 (0)	0 (0)	0 (0)	1 (3)
	ulcer	1 (3)	0 (0)	0 (0)	0 (0)
er	black patch	0 (0)	0 (0)	1 (3)	0 (0)
	white zone	1 (3)	0 (0)	1 (3)	0 (0)
	nodule	0 (0)	0 (0)	1 (3)	1 (3)
	rough	1 (3)	2 (6)	0 (0)	0 (0)
	nodular	1 (3)	0 (0)	0 (0)	0 (0)
	herniation	3 (8)	6 (17)	3 (8)	2 (6)
ney	cyst	1 (3)	0 (0)	0 (0)	0 (0)
	granular	0 (0)	1 (3)	1 (3)	0 (0)
uitary	enlarged	5 (13)	3 (9)	4 (10)	3 (9)
	red zone	8 (21)	4 (11)	3 (8)	8 (24)
	brown zone	1 (3)	0 (0)	0 (0)	0 (0)
	black zone	2 (5)	3 (9)	2 (5)	1 (3)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1
SEX : FEMALE

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

an	Findings	Group Name Control NO. of Animals 38 (%)	320 ppm 35 (%)	800 ppm 39 (%)	2000 ppm 34 (%)
uitary	nodule	1 (3)	3 (9)	2 (5)	1 (3)
	cyst	0 (0)	1 (3)	1 (3)	1 (3)
oid	enlarged	0 (0)	2 (6)	2 (5)	0 (0)
	nodule	0 (0)	1 (3)	0 (0)	0 (0)
nal	enlarged	1 (3)	0 (0)	1 (3)	0 (0)
r	enlarged	0 (0)	1 (3)	1 (3)	0 (0)
	cyst	1 (3)	1 (3)	0 (0)	0 (0)
s	nodule	5 (13)	4 (11)	4 (10)	9 (26)
	cyst	1 (3)	0 (0)	0 (0)	0 (0)
	deformed	0 (0)	0 (0)	0 (0)	1 (3)
cli gl	nodule	0 (0)	0 (0)	0 (0)	1 (3)
n	swollen	1 (3)	0 (0)	0 (0)	0 (0)
	red zone	1 (3)	0 (0)	0 (0)	0 (0)
	white	5 (13)	3 (9)	2 (5)	0 (0)
toneum	nodule	1 (3)	0 (0)	0 (0)	0 (0)
r	scab	0 (0)	0 (0)	1 (3)	3 (9)
	tail:nodule	0 (0)	0 (0)	1 (3)	1 (3)

APPENDIX H 5

GROSS FINDINGS : SUMMARY, RAT : MALE DEAD AND MORIBUND ANIMALS (2-YEAR STUDY)

GROSS FINDINGS (SUMMARY) STUDY NO. : 0328 DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

gan	Findings	Group Name Control NO. of Animals 10 (%)	320 ppm 6 (%)	800 ppm 9 (%)	2000 ppm 11 (%)
in/app	nodule	2 (20)	0 (0)	1 (11)	1 (9)
	scab	0 (0)	1 (17)	0 (0)	0 (0)
bcutis	edema	0 (0)	0 (0)	0 (0)	1 (9)
	mass	0 (0)	1 (17)	2 (22)	2 (18)
sal cavit	hemorrhage	0 (0)	0 (0)	0 (0)	1 (9)
ng	red	0 (0)	0 (0)	0 (0)	1 (9)
	white zone	0 (0)	0 (0)	0 (0)	1 (9)
	red zone	0 (0)	0 (0)	0 (0)	1 (9)
	edema	0 (0)	0 (0)	0 (0)	1 (9)
	nodule	0 (0)	0 (0)	1 (11)	1 (9)
	voluminus	1 (10)	0 (0)	0 (0)	0 (0)
ph node	enlarged	0 (0)	1 (17)	0 (0)	1 (9)
een	enlarged	3 (30)	3 (50)	3 (33)	1 (9)
rt	white	1 (10)	0 (0)	0 (0)	0 (0)
	white zone	0 (0)	0 (0)	1 (11)	0 (0)
stomach	nodule	0 (0)	0 (0)	0 (0)	1 (9)
mach	gas	0 (0)	0 (0)	0 (0)	1 (9)
ll intes	red zone	0 (0)	0 (0)	1 (11)	0 (0)
	gas	0 (0)	0 (0)	0 (0)	1 (9)
'er	enlarged	0 (0)	0 (0)	1 (11)	0 (0)
	pale	0 (0)	0 (0)	0 (0)	1 (9)
	nodule	0 (0)	0 (0)	0 (0)	2 (18)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1
SEX : MALE

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

an	Findings	Group Name Control NO. of Animals 10 (%)	320 ppm 6 (%)	800 ppm 9 (%)	2000 ppm 11 (%)
er	rough	0 (0)	0 (0)	2 (22)	0 (0)
	nodular	0 (0)	0 (0)	0 (0)	1 (9)
	herniation	0 (0)	1 (17)	0 (0)	1 (9)
ı ө у	enlarged	0 (0)	1 (17)	0 (0)	0 (0)
	nodule	0 (0)	0 (0)	0 (0)	1 (9)
	granular	0 (0)	1 (17)	4 (44)	2 (18)
n bladd	urine:marked retention	0 (0)	1 (17)	0 (0)	0 (0)
	urine:red	1 (10)	1 (17)	0 (0)	1 (9)
itary	enlarged	3 (30)	1 (17)	4 (44)	0 (0)
	red zone	0 (0)	0 (0)	1 (11)	0 (0)
	nodule	0 (0)	0 (0)	0 (0)	1 (9)
oid	enlarged	0 (0)	1 (17)	0 (0)	0 (0)
nal	enlarged	1 (10)	0 (0)	0 (0)	0 (0)
is	atrophic	2 (20)	0 (0)	0 (0)	1 (9)
	nodule	1 (10)	2 (33)	5 (56)	2 (18)
o/cli gl	nodule	1 (10)	0 (0)	0 (0)	1 (9)
n	red zone	0 (0)	0 (0)	1 (11)	1 (9)
	hemorrhage	0 (0)	0 (0)	2 (22)	0 (0)
al cord	red zone	0 (0)	0 (0)	1 (11)	0 (0)
	hemorrhage	0 (0)	0 (0)	1 (11)	0 (0)
	white	1 (10)	0 (0)	0 (0)	1 (9)
oal gl	nodule	0 (0)	0 (0)	0 (0)	1 (9)

GROSS FINDINGS (SUMMARY)

ANIMAL : RAT F344/DuCrj

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1
SEX : MALE

PAGE: 3

organ	Findings	Group Name NO. of Animals	Control 10 (%)	320 ppm 6 (%)	800 ppm 9 (%)	2000 ppm 11 (%)
one	nodule		1 (10)	0 (0)	0 (0)	0 (0)
leura	nodule		0 (0)	1 (17)	1 (11)	0 (0)
peritoneum	hemorrhage		0 (0)	1 (17)	0 (0)	0 (0)
	nodule		1 (10)	0 (0)	1 (11)	2 (18)
	mass		1 (10)	0 (0)	0 (0)	0 (0)
dominal c	ascites		1 (10)	1 (17)	1 (11)	1 (9)
senterium	nodule		0 (0)	1 (17)	0 (0)	1 (9)
thoracic ca	hemorrhage		0 (0)	0 (0)	1 (11)	0 (0)
	pleural fluid		0 (0)	1 (17)	1 (11)	3 (27)
her	hindlimb:nodule		1 (10)	0 (0)	0 (0)	0 (0)
ole body	anemic		0 (0)	0 (0)	1 (11)	0 (0)

(HPT080)

BAIS 3

APPENDIX H 6

GROSS FINDINGS : SUMMARY, RAT : FEMALE DEAD AND MORIBUND ANIMALS (2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

GROSS FINDINGS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

PAGE: 4

: FEMALE SEX

Organ	Findings	Group Name Control NO. of Animals 12 (%)	320 ppm 15 (%)	800 ppm 11 (%)	2000 ppm 16 (%)
skin/app	scab	0 (0)	1 (7)	0 (0)	0 (0)
subcutis	edema	0 (0)	0 (0)	0 (0)	1 (6)
	jaundice	0 (0)	2 (13)	1 (9)	0 (0)
	шаяя	3 (25)	1 (7)	3 (27)	7 (44)
lung	red	0 (0)	0 (0)	0 (0)	1 (6)
	red zone	0 (0)	0 (0)	1 (9)	0 (0)
	edema	0 (0)	1 (7)	0 (0)	0 (0)
	nodule	0 (0)	2 (13)	2 (18)	2 (13)
lymph node	enlarged	0 (0)	1 (7)	1 (9)	1 (6)
spleen	enlarged	3 (25)	7 (47)	2 (18)	4 (25)
	deformed	0 (0)	0 (0)	0 (0)	1 (6)
	adhesion	0 (0)	1 (7)	1 (9)	0 (0)
forestomach	ulcer	0 (0)	2 (13)	0 (0)	0 (0)
gl stomach	ulcer	0 (0)	1 (7)	0 (0)	0 (0)
cecum	red zone	0 (0)	1 (7)	0 (0)	0 (0)
liver	pale	0 (0)	1 (7)	0 (0)	1 (6)
	nodule	0 (0)	1 (7)	0 (0)	2 (13)
	rough	0 (0)	1 (7)	0 (0)	0 (0)
	herniation	2 (17)	3 (20)	1 (9)	2 (13)
pancreas	nodule	0 (0)	0 (0)	1 (9)	1 (6)
kidney	white zone	0 (0)	2 (13)	0 (0)	0 (0)
	brown zone	0 (0)	0 (0)	0 (0)	1 (6)

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

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

SEX

REPORT TYPE : A1 : FEMALE

rgan	Findings	Group Name Control NO. of Animals 12 (%)	320 ppm 15 (%)	800 ppm 11 (%)	2000 ppm 16 (%)
idney	hydronephrosis	0 (0)	0 (0)	1 (9)	1 (6)
rin bladd	red zone	0 (0)	2 (13)	0 (0)	1 (6)
	urine:marked retention	0 (0)	1 (7)	0 (0)	2 (13)
	fluid:red	0 (0)	0 (0)	0 (0)	1 (6)
ituitary	enlarged	3 (25)	3 (20)	1 (9)	2 (13)
	red zone	0 (0)	0 (0)	1 (9)	2 (13)
	nodule	0 (0)	2 (13)	0 (0)	1 (6)
drenal	enlarged	2 (17)	1 (7)	I (9)	0 (0)
vary	enlarged	1 (8)	1 (7)	0 (0)	0 (0)
	cyst	0 (0)	0 (0)	0 (0)	1 (6)
terus	enlarged	0 (0)	1 (7)	0 (0)	0 (0)
	nodule	1 (8)	2 (13)	3 (27)	3 (19)
	dilated lumen	0 (0)	1 (7)	0 (0)	0 (0)
	fluid:red	0 (0)	0 (0)	1 (9)	0 (0)
agina	nodule	0 (0)	0 (0)	1 (9)	0 (0)
rep/cli gl	nodule	1 (8)	0 (0)	0 (0)	0 (0)
rain	red zone	0 (0)	1 (7)	0 (0)	1 (6)
	hemorrhage	0 (0)	1 (7)	0 (0)	1 (6)
	nodule	1 (8)	0 (0)	0 (0)	0 (0)
pinal cord	red zone	0 (0)	2 (13)	0 (0)	1 (6)
	hemorrhage	0 (0)	1 (7)	0 (0)	1 (6)
	nodule	0 (0)	1 (7)	0 (0)	0 (0)

STUDY NO. : 0328 ANIMAL

: RAT F344/DuCrj

REPORT TYPE : A1 : FEMALE GROSS FINDINGS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

320 ppm 800 ppm 2000 ppm Group Name Control 16 (%) NO. of Animals 12 (%) 15 (%) 11 (%) Organ_ Findings_ 0 (0) 1 (7) 0 (0) 0 (0) eye white 0 (0) 1 (8) 0 (0) 0 (0) Zymbal gl nodule 0 (0) 1 (7) 2 (18) 1 (6) peritoneum nodule 0 (0) 0 (0) 0 (0) 1 (8) mass 0 (0) 0 (0) 1 (9) 0 (0) retroperit mass 0 (0) 0 (0) 0 (0) 1 (6) abdominal c mass 0 (0) 4 (25) 0 (0) 1 (7) ascites 0 (0) 0 (0) 0 (0) 1 (9) thoracic ca nodule 0 (0) 0 (0) 1 (9) 2 (13) pleural fluid 0 (0) 0 (0) 1 (9) 3 (19) whole body anemic

(HPT080)

BAIS 3

APPENDIX I 1

ORGAN WEIGHT, ABSOLUTE: SUMMARY, RAT: MALE

(2-YEAR STUDY)

ORGAN WEIGHT: ABSOLUTE (SUMMARY)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj SURVIVAL ANIMALS (105W)

REPORT TYPE : A1

UNIT: g

SEX : MALE

oup Name	NO. of Animals	Body Weight	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	40	384± 28	0.077± 0.015	2.769± 1.171	1.230± 0.085	1.453± 0.190	2.634± 0.221
320 ppm	44	360± 48*	0.083± 0.033	2.957± 1.333	1.204± 0.106	1.587± 0.562	2.802± 0.399
800 ppm	41	353± 22**	0.088± 0.075	2.659± 1.118	1.204± 0.094	1.423± 0.200	2.757± 0.299
2000 ppm	39	328± 25**	0.079± 0.040	3.137± 1.158	1.149± 0.086**	1.365± 0.079	2.853± 0.300**

PAGE: 1

BAIS 3 (HCL040)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE UNIT: g ORGAN WEIGHT: ABSOLUTE (SUMMARY) SURVIVAL ANIMALS (105W)

oup Name	NO. of Animals	SPLEE	EN	LIVE	₹R	BRA:	
Control	40	1.131±	0. 594	10.394±	1.540	2.054士	0. 047
320 ppm	44	1.642±	1.632	11.508±	2. 020**	2.058±	0.059
800 ppm	41	1.479±	2. 432	11.946±	1.759**	2.060±	0.048
2000 ppm	39	0.926±	0. 289	12.361±	1. 199**	2.082±	0.046

PAGE: 2

(HCL040) BAIS 3

APPENDIX I 2

ORGAN WEIGHT, ABSOLUTE: SUMMARY, RAT: FEMALE

(2-YEAR STUDY)

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : FEMALE UNIT: g

STUDY NO. : 0328

PAGE: 3

oup Name	NO. of Animals	Body	Weight	ADRE	NALS	OVAR	IES	- HEAR	Γ	LUNG		KIDN	EYS
Control	38	248±	36	0.086±	0.047	0.143±	0.069	0.900±	0.075	1.021±	0.156	1.713±	0. 138
320 ppm	35	238±	23	0.074±	0.008	0.288±	0.833	0.892±	0.104	1.022±	0. 222	1.738±	0. 133
800 ppm	39	234±	32	0.102±	0. 182	0.159±	0. 181	0.885±	0. 104	0.986±	0. 161	1.766±	0. 123
2000 ppm	34	199±	26**	0.065±	0.007**	0.126±	0.016	0.833±	0.104*	0.926±	0.067**	1.670±	0.113

(HCL040) BAIS 3

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : FEMALE UNIT: g ORGAN WEIGHT: ABSOLUTE (SUMMARY) SURVIVAL ANIMALS (105W)

320 ppm	38 35	0.876± 0.763±	1.770 1.090	6.317± 6.790±	0. 921	1.900±	= 0.105
	35	0.763±	1,090	6 700 ±			
800 ppm				0.790±	0.930	1.874±	= 0.054
	39	0.588±	0. 467	7. 267±	0.924**	1.890±	= 0.051
2000 ppm	34	0.482±	0. 303**	7.086±	0, 923**	1.890±	= 0.051
Significant diff	fference ;	*: P ≤ 0.0	05 **:	P ≤ 0.01			Test of Dunnett

(HCL040)

BAIS 3

APPENDIX J 1

ORGAN WEIGHT, RELATIVE: SUMMARY, RAT: MALE

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE UNIT: %

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

PAGE: 1

oup Name	NO. of Animals		Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS
Control	40	384±	28	0.020± 0.004	0.720± 0.301	0.321± 0.023	0.380± 0.057	0.690± 0.086
320 ppm	44	360±	48*	0.024± 0.010	0.822± 0.360	0.339± 0.040	0.460± 0.229**	0.799± 0.202**
800 ppm	41	353±	22**	0.025± 0.021*	0.755± 0.319	0.342± 0.028**	0.405± 0.072*	0.785± 0.120**
2000 ppm	39	328±	25**	0.024± 0.012**	0.954± 0.349**	0.352± 0.035**	0.417± 0.033**	0.873± 0.106**

(HCL042)

BAIS 3

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE UNIT: %

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

PAGE: 2

Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN	
Control	40	0.297± 0.167	2.716± 0.449	0.537± 0.037	
320 ppm	44	0.492± 0.566	3.268± 0.848**	0.584± 0.096*	
800 ppm	41	0.431± 0.750	3.397± 0.588**	0.585± 0.037**	
2000 ppm	39	0.282± 0.089	3.778± 0.405**	0.638± 0.054**	
Significant	t difference;	* : P ≤ 0.05 **:	$P \leq 0.01$	Test of Dunnett	
(HCI 042)					BAIS

(HCL042)

APPENDIX J 2

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : FEMALE UNIT: %

STUDY NO. : 0328

PAGE: 3

oup Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNBYS
Control	38	248± 36	0.035± 0.017	0.058± 0.028	0.369± 0.050	0.424± 0.117	0.703± 0.086
320 ppm	35	238± 23	0.031± 0.004	0.115± 0.320	0.376± 0.045	0.435± 0.119	0.733± 0.053
800 ppm	39	234± 32	0.043± 0.069	0.069± 0.083	0.385± 0.071	0.433± 0.116	0.769± 0.118**
2000 ppm	. 34	199± 26**	0.033± 0.005	0.064± 0.010**	0.424± 0.065**	0.473± 0.069**	0.849± 0.085**

(HCLO42) BAIS 3

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : FEMALE UNIT: % ORGAN WEIGHT: RELATIVE (SUMMARY)

SURVIVAL ANIMALS (105W)

oup Name	NO. of Animals	SPLEEN	LIVER	BRAIN	
Control	38	0.413± 1.066	2.583± 0.413	0.786± 0.143	
320 ppm	35	0.333± 0.521	2.864± 0.415**	0.794± 0.083	
800 ppm	39	0.262± 0.252	3.152± 0.502**	0.824± 0.121	
2000 ppm	34	0.245± 0.162	3.572± 0.217**	0.967± 0.136**	

PAGE: 4

(HCLO42) BAIS 3

APPENDIX K 1

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY

RAT: MALE: ALL ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

4 : Severe

REPORT TYPE : A1

SEX : MALE

ANIMAL : RAT F344/DuCrj

PAGE: 1

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 (%) (%) (9)	3 4	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%)
{Integumentary	v system/appandage}					
skin/app	ulcer	(49) 0 0 (0) (0) (0		5 0 0 0 0 (10) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	inflammation	0 0 (0 0 0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	fibrosis	1 1 (0 0	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0)	0 0 0 0 0 0 (0) (0)
	hyperplasia:epidermis	4 0 (0 0	8 0 0 0 0 (16) (16) (0) (0)	6 0 0 0 0 (12) (0) (0)	5 0 0 0 (10) (0) (0) (0)
	scab	0 0 0	0 0	0 0 0 0 0	2 0 0 0 0 (4) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	epidermal cyst	2 0 (4) (0) (0 0	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)
subcutis	abscess	(50) 0 0 (0)(0)(0 0	\(\frac{50}{1} \) \(1 \) \(0 \) \(0 \) \(2 \) \(0 \) \(0 \) \(0 \)	<50> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
{Respiratory	system}					
nasal cavit	thrombus	<50> 2 0 (4) (0) (0 0 0) (0)	<50> 3 0 0 0 (6) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>

Grade 1: Slight 2: Moderate 3: Marked

< 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

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1 SEX : MALE

PAGE: 2

Organ		Up Name Control of Animals on Study 50 de 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
[Respiratory	system)				
asal cavit	cartilaginous metaplasia	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 0 0 0 0 0 0 0 0 0
	eosinophilic change:olfactory epithelium	19 9 0 0 (38) (18) (0) (0)	27 10 0 0 (54) (20) (0) (0)	30 7 0 0 (60) (14) (0) (0)	23 5 0 0 (46) (10) (0) (0)
	eosinophilic change:respiratory epitheliu	m 16 2 0 0 (32) (4) (0) (0)	23 0 0 0 (46)(0)(0)(0)	19 0 0 0 (38) (0) (0) (0)	24 6 0 0 * (48) (12) (0) (0)
	inflammation:foreign body	12 0 0 0 (24) (0) (0) (0)	16 0 0 0 (32) (0) (0) (0)	13 1 0 0 (26) (2) (0) (0)	17 2 0 0 (34) (4) (0) (0)
	necrosis:olfactory epithelium	0 0 1 0 (0) (2) (0)	1 0 0 0 (2) (0) (0) (0)	3 0 0 0 (6) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
ung	congestion	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 2 0 0 0 (4) (0) (0) (0)
	hemorrhage	0 0 0 0 0 (0) (0)	1 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	osseous metaplasia	0 0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)

ь 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

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ	N	roup Name o. of Animals on Study rade	Contro 50 2 ; (%) (9		<u>1</u> (%)	320 pp 50 2 3 (%) (%	4	1 (%)		pm 3 4 %) (%)	<u>1</u> (%)	2000 pp 50 2 3 (%) (9	
(Respiratory	system)												
ung	bronchiolar—alveolar cell hyperplasia	(0)	<50> 0 (0) (0 0 0) (0)	2 (4)	<50> 1 0 (2) (0	0	2 (4) (<50> 0 0) (0 0 0) (0)	2 (4) (<50> 0 (0) (0 0
Hematopoieti	c system}												
oone marrow	granulation	4 (8)	<50> 0 (0) (0 0	6 (12)	<50> 0 0 (0) (0) 0)) (0)	7 (14) (0 0	6 (12) (<50> 0 (0) (0 0
	increased hematopoiesis	8 (16)	0 (0) (0 0 0) (0)	10 (20)	0 (13 (26) (0 0	10 (20) (0) (0 0
	granulopoiesis:increased	1 (2)	0 (0) (0 0	1 (2)	0 () ()) (0)	(0) (0 (0 0 0 0) (0)	2 (4) (0 (0 0 0) (0)
ymph node	lymphadenitis	0 (0)	<50> 0 (0) (0 0 0) (0)	0 (0)	<50> 0 ((0) (0) 0)) (0)	1 (2)	<50> 0 (0) (0 0 0 0) (0)	0 (0) (0 0
spleen	congestion	0 (0)	<50> 0 (0) (0 0	0 (0)	<50> 1 (2) () 0	0 (0)		0 0 0 0) (0)	0 (0) (0 0 0) (0)
Grade (a> b (c) Significant	a: Number of animals examined at the sib: Number of animals with lesion c: b / a * 100												

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

ings	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(9	K)	(%)	<u>4</u> (%)	(%)	(%) (3 %)	(%)
																		_
om)																		
sit of hemosiderin	29 (58)	4	2	0 0)	28 (56)	2	0	0 (0)	34 (68)		5	0	0 0)	37 (74)	3			1 2)
rosis	0 (0)	0 (0) (0	0 0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	(1 2) (0	0 (0)	2 (4)	0 (0			0
ramedullary hematopoiesis	2 (4)	1 (2) (0	1 2)	5 (10)	0 (0)	2 (4)	0 (0)	3 (6)	(0 0) (1 2) (1 (2)	5 (10)				0 0)
ombus	0 (0)	1	0	0 (0)	0 (0)	0	0	0 (0)			0	0	0					0 0)
cardial fibrosis	22 (44)	0 (0) (0 0)	0 (0)	21 (42)	1 (2)	0 (0)	0 (0)	18 (36)	(0 0) (0	0	21 (42)				0 0)
dermal cyst	0 (0)	0	0	0 (0)	0 (0)	0	0	0 (0)			0	0	0 (0)	1 (2)				0 0)
· · ·	em) osit of hemosiderin rosis ramedullary hematopoiesis) ombus cardial fibrosis	osit of hemosiderin (58) rosis (0) ramedullary hematopoiesis 2 (4) ombus 0 (0) cardial fibrosis 22 (44)	Cosit of hemosiderin 29 4 (58) (8) (8) (8)	Cost of hemosiderin 29 4 2 2 58 68 6 4 6 6 6 6 6 6 6 6	Solution Solution	cosit of hemosiderin 29 4 2 0 28 (58) (8) (4) (0) (56) rosis 0 0 0 0 0 0 0 (0) (0) (0) (0) (0) ramedullary hematopoiesis 2 1 0 1 5 (4) (2) (0) (2) (10) combus 0 1 0 0 0 0 (0) (2) (0) (0) cardial fibrosis 22 0 0 0 21 (44) (0) (0) (0) (42)	State of the mosider in State of the mos	Solve Solv	Cosit of hemosiderin 29 4 2 0 28 2 0 0 0 0 0 0 0 0 0	cosit of hemosiderin 29 4 2 0 28 2 0 0 34 (58) (8) (4) (0) (56) (4) (0) (0) (68) rosis 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ramedullary hematopoiesis 2 1 0 1 5 0 2 0 3 (4) (2) (0) (2) (10) (0) (4) (0) (6) combus 0 1 0 0 0 0 0 0 0 0 0 0 0 combus 2 1 0 1 5 0 2 0 3 (4) (2) (0) (2) (10) (0) (0) (0) (0) (0) combus 0 1 0 0 0 0 0 0 0 0 0 0 (0) (2) (0) (0) (0) (0) (0) (0) (0) (0) cardial fibrosis 2 2 0 0 0 21 1 0 0 18 (44) (0) (0) (0) (0) (42) (2) (0) (0) (36)	cosit of hemosiderin 29 4 2 0 28 2 0 0 34 2 6 68 (1) rosis 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	osit of hemosiderin 29 4 2 0 28 2 0 0 34 5 (58) (8) (4) (0) (56) (4) (0) (0) (68) (10) (rosis 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	osit of hemosiderin 29 4 2 0 28 2 0 0 34 5 0 (58) (8) (4) (0) (56) (4) (0) (0) (68) (10) (0) (70) (10) (10) (10) (10) (10) (10) (10) (1	osit of hemosiderin $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	osit of hemosiderin 29 4 2 0 28 2 0 0 34 5 0 0 37 (55) (55) (74) rosis 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	osit of hemosiderin 29 4 2 0 28 2 0 0 34 5 0 0 37 3 (58) (8) (4) (0) (56) (4) (0) (0) (68) (10) (0) (0) (74) (6 rosis 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	osit of hemosiderin 29	osit of hemosiderin 29 4 2 0 28 2 0 0 34 5 0 0 37 3 0 (50) rosis 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive	system)				
stomach	ulcər:forestomach	<50> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>	<49> 1 1 0 0 (2) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	hyperplasia:forestomach	2 0 0 0 0 (4) (0) (0) (0)		1 0 0 0 0 (2) (3) (4)	1 0 0 0 0 (2) (0) (0)
	erosion:glandular stomach	3 0 0 0 0 (6) (6) (7)	2 0 0 0 0 (4) (0) (0) (0)	3 0 0 0 0 (6) (6) (7)	4 0 0 0 0 (8) (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 1 0 0 (0) (2) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	fibrosis glandular stomach	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)
liver	herniation	<50> 2 0 0 0 (4) (0) (0) (0		<50> 6 0 0 0 (12) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)
	angiectasis	0 0 0 0 0 (0) (0) (0		0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	necrosis:zonal	1 0 0 0 0 (2) (0) (0) (0)		1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)

Grade

1 : Slight

2 : Moderate

3 : Marked

4 : Severe

< a >

a : Number of animals examined at the site

ь

b: Number of animals with lesion

(c)

c:b/a*100

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

(HPT150)

BAIS3

ANIMAL

: RAT F344/DuCrj

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : MALE

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive	system}				
liver	necrosis:central	(50) 0 1 0 0 (0) (2) (0) (0)	<pre></pre>	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 0 3 0 0 (0) (6) (0) (0)
	necrosis:focal	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0)	0 1 0 0 (0) (0)
	fatty change:central	0 0 0 0 0 (0) (0)	1 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 1 0 (0) (2) (0)
	granulation	9 5 0 0 (18) (10) (0) (0)	9 3 0 0 (18) (6) (0) (0)	12 3 0 0 (24) (6) (0) (0)	10 3 0 0 (20) (6) (0) (0)
	clear cell focus	5 0 0 0 (10) (0) (0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0)	4 0 0 0 (8) (0) (0) (0)
	acidophilic cell focus	14 0 0 0 (28) (0) (0) (0)	11 0 0 0 (22) (0) (0) (0)	6 0 0 0 (12) (0) (0) (0)	14 4 0 0 (28) (8) (0) (0)
	basophilic cell focus	21 0 0 0 (42) (0) (0) (0)	20 2 0 0 (40) (4) (0) (0)	24 8 0 0 ** (48) (16) (0) (0)	33 7 0 0 ** (66) (14) (0) (0)
	spongiosis hepatis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)

^{3 :} Marked 4 : Severe 2 : Moderate 1 : Slight Grade

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

b : Number of animals with lesion b

c:b/a * 100 (c)

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

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

PAGE: 7

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive sy	/stem}				
liver	bile duct hyperplasia	\(\frac{50}{43} \) 6 0 0 (86) (12) (0) (0)	<50> 39 8 0 0 (78) (16) (0) (0)	<50> 46 4 0 0 (92) (8) (0) (0)	<50> 47 0 0 0 * (94) (0) (0) (0)
	cholangiofibrosis	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0)
pancreas	atrophy	<50> 4 0 0 0 (8) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)	4 0 0 0 (8) (0) (0) (0)	<50> 2 0 0 0 (4) (0) (0) (0)
	arteritis	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (0)
	islet cell hyperplasia	1 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	hyperplasia:acinar cell	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (2) (0) (0) (0)
{Urinary sys	ten)				
kidney	cyst	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)

Grade

1 : Slight

2 : Moderate

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

b: Number of animals with lesion

b c:b/a*100 (c)

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

^{3 :} Marked

^{4 :} Severe

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL REPORT TYPE : A1 : MALE SEX

: RAT F344/DuCrj

2000 ppm 800 ppm Group Name Control 320 ppm 50 50 50 No. of Animals on Study Grade _1 50 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4

Organ	Findings	<u>1 2 3 4</u> (%) (%) (%) (%)	1 Z 3 4 (%) (%) (%) (%)	1 2 3 ± (%) (%) (%) (%)	(%) (%) (%) (%)
{Urinary sys	stem)				
kidney	chronic nephropathy	<50> 26 15 4 1 (52) (30) (8) (2)	<pre></pre>	<50> 2 10 34 4 *** (4) (20) (68) (8)	<50> 1 5 32 11 *** (2) (10) (64) (22)
	hydronephrosis	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0)
	papillary necrosis	0 2 0 0 (0) (4) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	mineralization:cortico-medullary junction	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)
	mineralization:papilla	0 0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0)	46 1 0 0 *** (92) (2) (0) (0)	31 17 0 0 ** (62) (34) (0) (0)
	urothelial hyperplasia:pelvis	1 0 0 0 0 (2) (0) (0)	8 0 0 0 * (16) (0) (0)	34 2 0 0 ** (68) (4) (0) (0)	27 12 0 0 ** (54) (24) (0) (0)
	atypical tubule hyperplasia	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
urin bladd	transitional cell hyperplasia	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 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 b

(c) c:b/a*100

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

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Endocrine s	uotom)				
pituitary	hyperplasia	\(\langle 50 \rangle \) 15 1 0 0 (30) (2) (0) (0)	(50) 16 0 0 0 (32) (0) (0) (0)	<50> 11 0 0 0 (22) (0) (0) (0)	(50) 16 0 0 0 (32) (0) (0) (0)
	Rathke pouch	2 0 0 0 (4) (0) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)	4 0 0 0 0 (8) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
thyroid	C-cell hyperplasia	(50) 7 1 0 0 (14) (2) (0) (0)	\$50> 9 0 0 0 (18) (0) (0) (0)	9 0 0 0 (18) (0) (0) (0)	<pre></pre>
adrenal	hyperplasia:medulla	(49> 1 0 0 0 (2) (0) (0) (0)	<50> 2 0 0 0 (4) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>
	focal fatty change:cortex	4 0 0 0 (8)(0)(0)(0)	1 0 0 0 0 (2) (0) (0)	5 0 0 0 (10) (0) (0) (0)	3 0 0 0 0 (6) (6) (7)
{Reproductiv	ve system}				
testis	atrophy	<50> 42 2 0 0 (84) (4) (0) (0)	<50> 40 4 0 0 (80) (8) (0) (0)	<50> 40 6 0 0 (80) (12) (0) (0)	<pre></pre>

< a >

1: Slight 2: Moderate 3. M a: Number of animals examined at the site

ь

b : Number of animals with lesion

c:b/a * 100

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

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

HPP WATHURD (A 1904)

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Reproductive	avetem)				
testis	arteritis	5 0 0 0 (10) (0) (0) (0)	<50> 5 0 0 0 (10) (0) (0) (0)	5 0 0 0 (10) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)
	interstitial cell hyperplasia	4 0 0 0 0 (8) (0) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
epididymis	spermatogenic granuloma	<50> 0 0 0 0 (0) (0) (0) (0)	\(\langle 50 \rangle \) 1	<50> 0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)
semin ves	inflammation	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
prostate	inflammation	<50> 18 4 0 0 (36) (8) (0) (0)	<50> 10 3 0 0 (20) (6) (0) (0)	<50> 9 1 0 0 * (18) (2) (0) (0)	\$50\$ 9 0 1 0 * (18) (0) (2) (0)
	hyperplasia	13 0 0 0 (26) (0) (0) (0)	10 2 0 0 (20) (4) (0) (0)	8 0 0 0 (16) (0) (0) (0)	9 0 0 0 0 (18) (0) (0) (0)
mammary gl	galactocele	<50> 4 0 0 0 (8) (0) (0) (0)	50> 5 0 0 0 (10) (0) (0) (0)	<50> 0 1 0 0 (0) (2) (0) (0)	<50> 2 0 0 0 (4) (0) (0) (0)

4 : Severe

Grade 1: Slight 2: Moderate 3: Marked

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

b b: Number of animals with lesion

⁽c) c:b/a*100

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

ANIMAL

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

: RAT F344/DuCrj

ALL ANIMALS (0-105W)

REPORT TYPE : A1 : MALE SEX

2000 ppm 320 ppm 800 ppm Group Name Control 50 50 50 50 No. of Animals on Study 3 3 Grade (%) (%) (%) (%) Findings_ Organ___ (Nervous system) <50> <50> <50> <50> brain 0 0 0 1 0 0 0 0 0 0 0 0 0 hemorrhage (0)(0)(0)(0) (2)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) <50> spinal cord 1 0 0 0 0 0 0 0 0 0 0 0 0 0 hemorrhage (0)(0)(0)(0) (2)(0)(0)(0) (0) (0) (0) (0) (0)(0)(0)(0) {Special sense organs/appendage} <50> <50> <50> eye 0 0 0 8 1 0 0 0 0 0 0 cataract (8)(0)(0)(0) (16) (0) (0) (0) (2)(0)(0)(0) (8)(0)(0)(0) 7 0 0 0 0 0 0 0 retinal atrophy (14) (0) (0) (0) (8)(0)(0)(0) (6)(0)(0)(0) (2)(0)(0)(0) 0 0 0 0 mineralization:cornea (2)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) <50> <50> <50> <50> Harder gl 0 0 0 0 0 0 0 0 0 0 0 0 0 0 atrophy (0)(0)(0)(0) (0)(0)(0)(0) (2)(0)(0)(0) (2)(0)(0)(0) 3 : Marked 4 : Severe Grade 1 : Slight 2 : Moderate

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

b: Number of animals with lesion b

c:b/a*100

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

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ	Group No. o Grade Findings	f Animals on Study 50	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Special sense	organs/appendage}				
darder gl	lymphocytic infiltration	<50> 9 0 0 0 (18) (0) (0) (0)	<50> 8 0 0 0 (16) (0) (0) (0)	<50> 11 0 0 0 (22) (0) (0) (0)	<50> 13 0 0 0 (26) (0) (0) (0)
(Body cavities	s}				
peritoneum	mesothelial hyperplasia	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
(a> b	1: Slight 2: Moderate 3: Mar a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 ifference; *: P ≤ 0.05 **: P ≤ 0.01				

APPENDIX K 2

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY

RAT: FEMALE: ALL ANIMALS

(2-YEAR STUDY)

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

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Organ	N	roup Name	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Integumentar	y system/appandage}				
skin/app	ulcer	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	(50) 1 0 0 0 (2) (0) (0) (0)
	fibrosis	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)
	hyperplasia:epidermis	0 0 0 0 0 (0) (0)	0 0 0 0 0	1 0 0 0 0 (2) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
	scab	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
{Respiratory	system)				
nasal cavit	thrombus	<50> 2 0 0 0 (4) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)	3 0 0 0 (6) (0) (0) (0)	<pre></pre>
	cartilaginous metaplasia	1 0 0 0 (2) (3) (4) (5)	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0)	0 0 0 0 0 (0)
	eosinophilic change:olfactory epitheliu	m 23 19 1 0 (46)(38)(2)(0)	20 21 0 0 (40) (42) (0) (0)	19 22 0 0 (38) (44) (0) (0)	29 8 0 0 * (58) (16) (0) (0)
Grade <a>a> b (c) Significant	a: Number of animals examined at the sit b: Number of animals with lesion c: b/a * 100				

SEX

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

: FEMALE

)rgan	Findings	Group Name No. of Animals on Study Grade 1 (%)	Contr 50 2 (%) (01 3 4 %) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
Respiratory s	system}						
nasal cavit	eosinophilic change:respiratory epithe		<50> 0 (0) (0 0 0) (0)	<pre></pre>	<50> 22 0 0 0 (44) (0) (0) (0)	<50> 21 0 0 0 (42) (0) (0) (0)
	inflammation:foreign body	2 (4)	0 (0) (0 0	1 0 0 0 0 (2) (0) (0) (0)	2 0 0 0 0 (4) (0) (0)	1 0 0 0 0 (2) (0) (0)
lung	congestion	0 (0)	<50> 0 (0) (0 0 0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
	necrosis:zonal	0 (0)	0 (0) (0 0	0 0 0 0 0 (0)	0 1 0 0 (0) (0)	0 0 0 0 0
	accumulation of foamy cells	1 (2)	0 (0) (0 0 0 0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	1 0 0 0 0 (2) (0) (0)
	bronchiolar-alveclar cell hyperplasia	2 (4)	1 (2) (0 0	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 1 0 0 (0) (0)
{Hematopoieti	c system)						
bone marrow	granulation	14 (28)	<50> 0 (0) (0 0	<50> 11 0 0 0 (22) (0) (0) (0)	<50> 11 1 0 0 (22) (2) (0) (0)	<50> 10 0 0 0 (20) (0) (0) (0)
Grade < a > b	1: Slight 2: Moderate 3 a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 ifference; *: P ≤ 0.05 **: P ≤	: Marked 4 : Severe					

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

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

PAGE: 15

Organ	· No	roup Name Control c. of Animals on Study 50 rade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Hematopoieti	ic system}				
bone marrow	increased hematopoiesis	500> 5 0 0 0 (10) (0) (0) (0)	\$50> 9 0 0 0 (18) (0) (0) (0)	<50> 9 0 0 0 (18) (0) (0) (0)	(50) 14 0 0 0 3 (28) (0) (0) (0)
	granulopoiesis:increased	1 0 0 0 0 (2) (3) (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	1 0 0 0 0 (2) (0) (0) (0)
spleen	deposit of hemosiderin	32 9 0 0 (64) (18) (0) (0)	<pre></pre>	<50> 32 6 1 0 (64) (12) (2) (0)	<50> 20 16 0 0 (40) (32) (0) (0)
	fibrosis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)
	extramedullary hematopoiesis	4 1 2 0 (8) (2) (4) (0)	5 1 4 0 (10) (2) (8) (0)	5 4 2 0 (10) (8) (4) (0)	3 4 5 0 (6) (8) (10) (0)
{Circulatory	system}				
heart	thrombus	(0) (0) (0) (0)	<pre></pre>	<50> 1 0 0 0 (2) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
Grade <a> b (c) Significant	1: Slight 2: Moderate 3: a: Number of animals examined at the sit b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤				

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Organ	No	oup Name Control of Animals on Study 50 ade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
Circulator	y system)				
heart	mineralization	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	myocardial fibrosis	5 0 0 0 0 (10) (0) (0)	3 0 0 0 0 (6) (6) (0)	5 0 0 0 (10) (0) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)
Digestive	system}				
ongue	fibrosis	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
stomach	mineralization	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	(0)(0)(0)(0)	(50) 0 0 0 0 (0) (0) (0) (0)
	ulcer:forestomach	1 2 0 0 (2) (4) (0) (0)	1 1 0 0 (2) (2) (0) (0)	0 2 0 0 (0) (4) (0) (0)	1 0 0 0 0 0 (2) (0) (0) (0)
	hyperplasia:forestomach	3 0 0 0 0 (6) (6) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)	3 0 0 0 0 (6) (6) (0) (0)	2 0 0 0 0 (4) (0) (0) (0)
Grade < a > b (c)	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 t difference; *: P ≤ 0.05 **: P ≤ 0				

ANIMAL

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

: RAT F344/DuCrj

REPORT TYPE : A1 SEX

: FEMALE

PAGE: 17

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive s	system}				
stomach	erosion:glandular stomach	(50) 1 1 0 0 (2) (2) (0) (0)	(50) 2 0 0 0 (4) (0) (0) (0)	\$50> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>
	ulcer:glandular stomach	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0)
liver	herniation	5 0 0 0 0 (10) (0) (0) (0)	\$50> 9 0 0 0 (18) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)
	angiectasis	1 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0
	necrosis:zonal	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0
	necrosis:central	0 2 0 0 (0) (0) (0)	1 I 0 0 (2) (2) (0) (0)	2 1 0 0 (4) (2) (0) (0)	4 0 0 0 * (8) (0) (0) (0)
	necrosis:focal	0 1 0 0 (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)	2 0 0 0 0 (4) (0) (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0 (0) (0)

1 : Slight Grade

2 : Moderate

3 : Marked

4 : Severe

< a >

a : Number of animals examined at the site

b

b: Number of animals with lesion

c:b/a*100

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

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

PACE: 18

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Digestive s	ystem}				
liver	granulation	<50> 22 5 0 0 (44) (10) (0) (0)	\(\frac{50}{17} \) 17 4 0 0 \\ (34) (8) (0) (0)	(50) 15 3 0 0 (30) (6) (0) (0)	<pre></pre>
	clear cell focus	2 0 0 0 0 (4) (0) (0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (4) (0) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)
	acidophilic cell focus	2 0 0 0 0 (4) (0) (0) (0)	0 1 0 0 (0) (2) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	5 3 0 0 (10) (6) (0) (0)
	basophilic cell focus	23 3 0 0 (46)(6)(0)(0)	18 2 0 0 (36) (4) (0) (0)	16 2 0 0 (32) (4) (0) (0)	21 3 1 0 (42) (6) (2) (0)
	bile duct hyperplasia	17 0 0 0 (34)(0)(0)(0)	12 0 0 0 (24) (0) (0) (0)	14 0 0 0 (28) (0) (0) (0)	9 0 0 0 0 (18) (0) (0)
pancreas	atrophy	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	3 0 0 0 (6)(0)(0)(0)	<50> 1 0 0 0 (2) (0) (0) (0)
	islet cell hyperplasia	0 0 0 0 0 (0) (0)	1 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)
(Urinary sys	stem}				
kidney	infarct	<50> 0 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	\(\langle 50 \rangle \) 1	(50) 1 0 0 0 (2) (0) (0) (0)

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

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

b b: Number of animals with lesion

(c) c:b/a*100

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

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

Organ	No	coup Name Control of Animals on Study 50 ade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%)
{Urinary sy	rstem)				
kidney	cyst	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
	inflammatory infiltration	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0) (0)
	chronic nephropathy	22 2 0 0 (44)(4)(0)(0)	21 0 2 0 (42) (0) (4) (0)	28 2 1 1 (56) (4) (2) (2)	26 2 0 0 (52) (4) (0) (0)
	hydronephrosis	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0) (0)	1 0 0 0 0 (2) (0) (0)
	papillary necrosis	0 0 0 0 0 (0) (0)	1 0 0 0 (2) (0) (0) (0)	1 0 0 0 (2) (0) (0) (0)	4 1 0 0 (8) (2) (0) (0)
	mineralization:cortico-medullary junctic	on 5 0 0 0 (10) (0) (0) (0)	7 0 0 0 (14) (0) (0) (0)	6 0 0 0 (12) (0) (0) (0)	3 0 0 0 0 (6) (6) (0) (0)
	mineralization:papilla	9 0 0 0 0 (18) (0) (0) (0)	9 0 0 0 0 (18) (0) (0) (0)	9 0 0 0 (18) (0) (0) (0)	17 0 0 0 (34) (0) (0) (0)
	urothelial hyperplasia:pelvis	10 0 0 0 (20) (0) (0) (0)	5 0 0 0 (10) (0) (0) (0)	15 0 0 0 (30) (0) (0) (0)	6 0 0 0 0 (12) (0) (0) (0)

^{1:} Slight 2: Moderate 3 : Marked 4 : Severe Grade

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

b

c:b/a*100 (c)

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

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1
SEX : FEMALE

Organ	4	Froup Name Control (6. of Animals on Study 50 (1.) (1	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Urinary sys	tem)				
kidney	atypical tubule hyperplasia	<50> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
	necrosis:cortex	0 0 0 0 0 (0) (0)	0 0 1 0 (0) (2) (0)	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)
{Endocrine s	ystem)				
pituitary	oyet	<50> 9 0 0 0 (18) (0) (0) (0)	<50> 13 0 0 0 (26) (0) (0) (0)	<50> 11 0 0 0 (22) (0) (0) (0)	(50) 10 1 0 0 (20) (2) (0) (0)
	hyperplasia	9 0 0 0 0 (18) (0) (0) (0)	9 0 0 0 0 (18) (0) (0) (0)	9 0 0 0 0 (18) (0) (0) (0)	8 0 0 0 (16) (0) (0) (0)
	Rathke pouch	1 0 0 0 0 (2) (3) (4)	4 0 0 0 0 (8) (0) (0)	1 0 0 0 0 (2) (0) (0)	1 0 0 0 0 (2) (0) (0)
thyroid	ultimibranchial body remanet	(49) 0 0 0 0 (0)(0)(0)(0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	. <49> 1 0 0 0 (2) (0) (0) (0)
Grade <a> b (c) Significant	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤				

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

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Organ		Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Endocrine sys	stem)		Ŷ		
thyroid	C-cell hyperplasia	<pre></pre>	5 0 0 0 (10) (0) (0) (0)	<50> 6 0 0 0 (12) (0) (0) (0)	<pre></pre>
parathyroid	hyperplasia	(0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
adrenal	hyperplasia:cortical cell	(50) 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)
	hyperplasia:medulla	1 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (2) (0) (0)	0 0 0 0 0 (0) (0)
	focal fatty change:cortex	3 1 0 0 (6)(2)(0)(0)	4 0 0 0 0 (8) (0) (0) (0)	7 0 0 0 (14) (0) (0) (0)	5 1 0 0 (10) (2) (0) (0)
	necrosis:cortex	0 1 0 0		0 0 0 0 0 (0) (0)	0 0 0 0 0 (0)
{Reproductive	a system)				
ovary	thrombus	<pre></pre>		<50> 0 1 0 0 (0) (2) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
Grade <a>> b (c) Significant	a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100	3 : Marked 4 : Severe site			

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY) ALL ANIMALS (0-105W)

REPORT TYPE : A1
SEX : FEMALE

Organ	Findings	Group Name Control No. of Animals on Study 50 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 50 1 2 3 4 (%) (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Reproductive	system}				
ovary	cyst	(50) 1 0 0 0 (2) (0) (0) (0)	(49) 1 0 0 0 (2) (0) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	<pre></pre>
uterus	hyperplasia:epithelium	<49> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)
	cystic endometrial hyperplasia	2 0 0 0 0 (4) (0) (0) (0)	4 0 0 0 0 (8) (0) (0) (0)	3 0 0 0 0 (6) (6) (7)	2 0 0 0 0 (4) (0) (0) (0)
manmary gl	galactocele	<50> 7	7 · 0 0 0 0 (14) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)	6 0 0 0 (12) (0) (0) (0)
{Special sens	se organs/appendage}				
еуе	cataract	<50> 6 0 0 0 (12) (0) (0) (0)	<50> 4 0 0 0 (8) (0) (0) (0)	<50> 2 0 0 0 (4) (0) (0) (0)	<pre></pre>
	retinal atrophy	6 0 0 0 0 (12) (0) (0)	3 0 0 0 0	2 0 0 0 0 (4) (0) (0) (0)	0 0 0 0 *
Grade <a>> b (c)	1: Slight 2: Moderate a: Number of animals examined at th b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **:	3: Marked 4: Severe me site P ≤ 0.01 Test of Chi Square			

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 : FEMALE

PAGE: 23

Organ		p Name	320 ppm 50 1 2 3 4 (%) (%) (%)	800 ppm 50 1 2 3 4 (%) (%) (%) (%)	2000 ppm 50 1 2 3 4 (%) (%) (%) (%)
{Special sens	se organs/appendage}				
өуө	keratitis	(50) 0 1 0 0 (0) (2) (0) (0)	(50) 0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0)	<50> 0 0 0 0 0 0 0 0 0 0 0
Harder gl	atrophy	<50> 1 0 0 0 (2) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	2 0 0 0 (4) (0) (0) (0)
	lymphocytic infiltration	17 0 0 0 (34) (0) (0) (0)	17 0 0 0 (34) (0) (0) (0)	17 0 0 0 (34) (0) (0) (0)	15 0 0 0 (30) (0) (0) (0)
{Musculoskel	etal system}				
muscle	nineralization	<50> 0 0 0 0 (0) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<50> 0 0 0 0 (0) (0) (0) (0)
bone	osteosclerosis	<50> 1 0 0 0 (2) (0) (0) (0)	(50) 1 0 0 0 (2) (0) (0) (0)	<50> 1 0 0 0 (2) (0) (0) (0)	2 0 0 0 (4) (0) (0) (0)
Grade (a > b (c)	a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100	arked 4: Severe 01 Test of Chi Square			

(HPT150)

APPENDIX K 3

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY

RAT: MALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

1

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

Organ	Findings	Group Name Continue Continu	Sontrol 40 3 4 (%) (%)	320 ppm 44 1 2 3 4 (%) (%) (%) (%)	800 ppm 41 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
{Integumentary	/ system/appandage}					
kin/app	ulcer	0 0	(40) 0 0 (0) (0)	<44> 5 0 0 0 (11) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<pre></pre>
	fibrosis	1 1 (3) (3)	0 0	1 0 0 0 0 (2) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0
	hyperplasia:epidermis	4 0 (10) (0)	0 0	8 0 0 0 (18) (0) (0) (0)	6 0 0 0 0 (15) (0) (0)	5 0 0 0 (13) (0) (0) (0)
	scab	0 0	0 0	0 0 0 0 0 (0) (0)	2 0 0 0 0 (5) (0) (0)	1 0 0 0 0 (3) (0) (0)
	epidermal cyst	1 0 (3) (0)	0 0	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0
ubcutis	abscess	0 0	<40> 0 0 0 (0) (0)	<44> 1 0 0 0 (2) (0) (0) (0)	<pre></pre>	(0) (0) (0) (0) 0 0 0 0 0
Respiratory	system)					
nasal cavit	thrombus	0 0	(40> 0 0) (0) (0)	(44) 1 · 0 0 0 (2) (0) (0) (0)	<pre></pre>	<39> 0 0 0 0 0 0 0 0 0 0 0

ANIMAL : RAT F344/DuCrj

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

REPORT TYPE : A1

SEX : MALE

PAGE : 2

		Group Name		trol			;	320 p	pm) ppm) ppm	
Organ	Findings	No. of Animals on Study Grade 1 (%)	40 2 (%)	3 (%)	<u>4</u> (%)	(%)	2 (%)		3 (%)	<u>4</u> (%)	(9	<u>(</u> (6)	2 (%)	3 (%)	(%)	<u>1</u>	5)	2 (%)	3 (%)	<u>4</u> (%)
{Respiratory s	system)																			
nasal cavit	eosinophilic change:olfactory epithe		<403 9 (23) (0	0 (0)	25 (57)	9		0 0) (0	2 (6		<4: 5 12)	0	0 (0)	21 (54		5 13)	0	0 (0)
	eosinophilic change:respiratory epit		2 (5) (0 0)	0 (0)	20 (45)	0		0	0 (0)	1 (3		0 0)	0 (0)	0 (0)	24 (62		6 15)	0 (0)	0 **
	inflammation:foreign body	11 (28)	0 (0) (0	0 (0)	15 (34)	0		0	0 (0)		9 2) (1 2)	0 (0)	0 (0)	15		1 3)	0 (0)	0 (0)
	necrosis:olfactory epithelium	0 (0)	0 (0) (1 3)	0 (0)	1 (2)	(0) (0	0 (0)	(3 7) (0	0 (0)	0 (0)	(:	l 3) (0	0 (0)	0 (0)
lung	hemorrhage	0 (0)	<40 0 (0) (0	0 (0)	1 (2)	0	<44>) (0 0) (0 (0)		0 0) (<4 0 0)	0	0 (0)		i 3) ((3 0 0)	0	0 (0)
	osseous metaplasia	0 (0)	0 (0 (0)	0 (0)	2 (5)	(0		0	0 (0)		0 0) (0 0)	0 (0)	0 (0)		1 3) (0	0 (0)	0 (0)
	bronchiolar-alveolar cell hyperplas		0 (0) (0 (0)	0 (0)	2 (5)	1 (2) (0 0)	0 (0)	(0 0) (0 0)	0 (0)	0 (0)		2 5) (0	0 (0)	0 (0)
{Hematopoieti	c system)																			
bone marrow	granulation	4 (10)	<40 0 (0) (0	0 (0)	6 (14)	0		0	0 (0)		7 7) (0	0 (0)	0 (0)		6 5) (0	9> (0)	0 (0)

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

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

b b: Number of animals with lesion

(¢) c:b/a*100

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

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	Con: 40 2 (%)	3 (%)	<u>4</u> (%)		1 (%)	32 4 2 (%)	0 ppm 4 3 (%)	4	<u>4</u> %)	<u>1</u> (9	5)		0 pp 1 3 (%		<u>4</u> (%)		1 (%)			(%)
(Hematopoietic	c system)																					
oone marrow	increased hematopoiesis	8 (20)	<40 0 (0) (0	0 (0)	(8 18) (<4 0 0)	0	((0 0)	(22		<4 0 0)	1>		0 0)	(7 18)	0 (0)	0 0) (0 0)
	granulopoiesis:increased	1 (3)	(0) (0	0 (0)	(1 2) (0	0 (0)	((0 0)	())) (0 0)	(())) (0 0)	(0	0 (0)	0 0) (0 0)
ymph node	lymphadenitis	0 (0)	<40 0 (0) (0	0 (0)	(0 (<4 0 0)	4> 0 (0)	(1	0 0)	(8	l S) (<4 0 0)	(())) (0	(0	0	0 0) (0 0)
pleen	congestion	0 (0)	<40 0 (0) (0	0 (0)	. (0	1			0 0)	(())) (<4 0 0)	i1> (())) (0	(0	0	0 0) (0 ()
	deposit of hemosiderin	28 (70)	1 (3) (0 (0)	0 (0)	(27 61) (0 0)	(0)	(0 0)	3, (8:	1 3) (0 0)	(())) (0	(35 90)	0 (0)	0 0) (0 (0)
	fibrosis	0 (0)	0 (0) (0 (0)	0 (0)	(0	0	(0)		0 0)	()))) (1 2)	(())) (0	(2 5)	(0)	0 0) (0 (0)
	extramedullary hematopoiesis	2 (5)	(3) (0 (0)	0 (0)	(4 9) (0 0)	1 (2)	:	0 0)	(2 5) (0 0)	(())) (1 2)	(5 13)	0 (0)	1 3) (0 (0)

Grade

^{4 :} Severe

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

b b: Number of animals with lesion

c:b/a*100

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

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL REPORT TYPE : A1

: RAT F344/DuCrj

PAGE: 4 : MALE SEX 800 ppm 2000 ppm 320 ppm Group Name Control 41 39 No. of Animals on Study 40 44 Grade 3 (%) (%) (%) (%) (%) (%) (%) (%) (%) Findings_ Organ____ {Circulatory system} **<41>** heart <40> <44> 0 0 1 0 13 0 0 0 16 0 0 0 myocardial fibrosis 0 18 0 (32) (0) (0) (0) (45) (0) (0) (0) (41) (2) (0) (0) (41) (0) (0) (0) {Digestive system} <40> <44> <40> <39> stomach 0 0 0 0 0 0 0 0 0 0 epidermal cyst 0 (0)(0)(0)(0) (0)(0)(0)(0) (3)(0)(0)(0) (0)(0)(0)(0) 0 0 ulcer:forestomach (0)(0)(0)(0) (3)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) hyperplasia: forestomach 0 0 0 0 (0)(0)(0)(0) (2)(0)(0)(0) (3)(0)(0)(0) (0)(0)(0)(0) erosion:glandular stomach 0 0 0 0 0 0 0 0 0 2 0 0 0 (2)(0)(0)(0) (8)(0)(0)(0) (5)(0)(0)(0) (8)(0)(0)(0) <40> <44> <41> <39> liver 0 0 3 0 0 0 herniation 2 0 0 0 2 0 0 6 0 0 (5)(0)(0)(0) (5)(0)(0)(0) (15) (0) (0) (0) (8)(0)(0)(0) 3 : Marked Grade 1 : Slight 2 : Moderate 4 : Severe < a > a : Number of animals examined at the site b

b: Number of animals with lesion

c:b/a*100 (c)

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

(HPT150)

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

: MALE

800 ppm 2000 ppm 320 ppm Control Group Name 39 No. of Animals on Study 40 44 41 Grade (%) (%) (%) (%) (%) (%) (%) (%) (%) Findings_ {Digestive system} <39> <40> <44> <41> liver 0 0 0 0 0 0 0 0 1 0 0 angiectasis (0)(0)(0)(0) (3)(0)(0)(0) (0)(0)(0)(0) (0)(2)(0)(0) 0 0 0 necrosis: zonal (2)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0) (3)(0)(0)(0) 0 0 0 0 0 0 fatty change:central (0)(0)(0)(0) (0)(0)(3)(0) (0)(0)(0)(0) (0)(0)(0)(0) 10 0 0 12 3 0 3 0 0 granulation (29) (7) (0) (0) (26) (8) (0) (0) (20) (7) (0) (0) (20) (10) (0) (0) 4 0 0 0 0 clear cell focus 0 0 0 0 (5)(0)(0)(0) (10) (0) (0) (0) (10) (0) (0) (0) (0)(0)(0)(0) 0 0 13 4 0 14 0 0 0 11 0 0 0 0 acidophilic cell focus (33) (10) (0) (0) (25) (0) (0) (0) (15) (0) (0) (0) (35) (0) (0) (0) 26 20 2 0 0 21 0 0 0 basophilic cell focus (45) (5) (0) (0) (51) (20) (0) (0) (67) (15) (0) (0) (48) (0) (0) (0) 0 0 0 0 0 0 spongiosis hepatis (0)(0)(0)(0) (2)(0)(0)(0) (0)(0)(0)(0) (0)(0)(0)(0)

PAGE: 5

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

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

: RAT F344/DuCrj ANIMAL REPORT TYPE : A1

: MALE SEX

STUDY NO. : 0328

maa 008 2000 ppm Group Name Control 320 ppm

Organ	Findings	Group Name Control	320 ppm 44 1 2 3 4 (%) (%) (%) (%)	800 ppm 41 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
{Digestive s	system)				
liver	bile duct hyperplasia	<pre></pre>	<pre></pre>	40 1 0 0 (98) (2) (0) (0)	38 0 0 0 * (97) (0) (0) (0)
	cholangiofibrosis	0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	0 0 0 0 0
pancreas	atrophy	<40> 4 0 0 0 (10) (0) (0) (0)	4 0 0 0 (9) (0) (0) (0)	3 0 0 0 (7) (0) (0) (0)	<pre></pre>
	arteritis	0 0 0 0 0 (0) (0)	0 0 0 0	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (0)
	islet cell hyperplasia	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0) (0)
	hyperplasia:acinar cell	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0) (0)
{Urinary sy	stem)				
kidney	cyst	<pre></pre>	<pre></pre>	0 0 0 0 (0) (0) (0) (0)	<pre></pre>

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

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

b: Number of animals with lesion b

⁽c) c:b/a * 100

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

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : MALE

Organ	I		3 4 (%) (%)	320 ppm 44 1 2 3 4 (%) (%) (%) (%)	800 ppm 41 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
{Urinary syst	tem)					
kidney	chronic nephropathy	21 15 (53) (38)	3 1 (8) (3)	<pre></pre>	<pre></pre>	<39> 0 1 27 10 *** (0) (3) (69) (26)
	mineralization:cortico-medullary junct	ion 0 0 (0) (0)	0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0)
	mineralization:papilla	0 0 (0) (0)	0 0 (0)	2 0 0 0 0 (5) (0) (0)	37 1 0 0 ** (90) (2) (0) (0)	25 13 0 0 ** (64) (33) (0) (0)
	urcthelial hyperplasia:pelvis	1 0 (3) (0)	0 0 (0)	7 0 0 0 (16) (0) (0) (0)	29 2 0 0 *** (71) (5) (0) (0)	23 12 0 0 ** (59) (31) (0) (0)
	atypical tubule hyperplasia	(0) (0)	0 0 (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (5) (0) (0) (0)	2 0 0 0 0 (5) (0) (0) (0)
urin bladd	transitional cell hyperplasia	0 0	40> 0 0 (0) (0)	<44> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<41> 0 0 0 0 (0) (0) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)
{Endocrine s	ystem)					
pituitary	hyperplasia	15 1	40> 0 0 (0) (0)	(44) 15 0 0 0 (34) (0) (0) (0)	(41) 10 0 0 0 (24) (0) (0) (0)	<pre></pre>
Grade (a > b (c)	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100 difference: * : P ≤ 0.05 **: P ≤					

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

Organ	Group No. of Grade Findings	Name Control Animals on Study 40 1 2 3 4 (%) (%) (%) (%)	320 ppm 44 1 2 3 4 (%) (%) (%) (%)	800 ppm 41 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%)
{Endocrine s	system}				
pituitary	Rathke pouch	<pre></pre>	4 0 0 0 (9) (0) (0) (0)	<pre></pre>	<39> 1 0 0 0 (3) (0) (0) (0)
thyroid	C-cell hyperplasia	5 1 0 0 (13) (3) (0) (0)	9 0 0 0 (20) (0) (0) (0)	<4i>9 0 0 0 0 (22) (0) (0) (0)	39> 5 1 0 0 (13) (3) (0) (0)
adrenal	hyperplasia:medulla	<pre></pre>	1 0 0 0 (2) (0) (0) (0)	41> 1 0 0 0 (2) (0) (0) (0)	(39) 1 0 0 0 (3) (0) (0) (0)
	focal fatty change:cortex	4 0 0 0 0 (10) (10) (10)	1 0 0 0 0 (2) (0) (0) (0)	4 0 0 0 (10) (0) (0) (0)	3 0 0 0 0 (8) (0) (0) (0)
{Reproducti	ve system}				
testis	atrophy	37 1 0 0 (93) (3) (0) (0)	37 4 0 0 (84) (9) (0) (0)	36 4 0 0 (88) (10) (0) (0)	<pre></pre>
	arteritis	5 0 0 0 0 (13) (0) (0) (0)	5 0 0 0 (11) (0) (0) (0)	5 0 0 0 (12) (0) (0) (0)	1 0 0 0 0 (3) (0) (0)
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3: Mar a: Number of animals exemined at the site b: Number of animals with lesion c: b / a * 100 cdifference; * : P ≤ 0.05 **: P ≤ 0.01				

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	Control 40 2 3 4 (%) (%) (%)	320 ppm 44 1 2 3 4 (%) (%) (%) (%)	800 ppm 41 1 2 3 4 (%) (%) (%) (%)	2000 ppm 39 1 2 3 4 (%) (%) (%) (%)
{Reproductive	system}					
testis	interstitial cell hyperplasia	2 (5) (<40> 0 0 0 (0) (0) (0)	3 0 0 0 (7) (0) (0) (0)	<pre></pre>	39> 1 0 0 0 (3) (0) (0) (0)
prostate	inflammation	17 (43)	<40> 2 0 0 (5) (0) (0)	(44) 10 2 0 0 (23) (5) (0) (0)	8 0 0 0 * (20) (0) (0) (0)	39> 7 0 0 0 * (18) (0) (0) (0)
	hyperplasia	13 (33)	0 0 0 0 (0) (0)	10 2 0 0 (23) (5) (0) (0)	7 0 0 0 0 (17) (0) (0) (0)	8 0 0 0 (21) (0) (0) (0)
manmary gl	galactocele	3 (8)	<40> 0 0 0 (0) (0) (0)	4 0 0 0 (9) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<39> 2 0 0 0 (5) (0) (0) (0)
{Special sens	se organs/appendage}					
эуө	cataract	3 (8)	<40> 0 0 0 (0) (0) (0)	44> 1 0 0 0 (2) (0) (0) (0)	41> 4 0 0 0 (10) (0) (0) (0)	7 0 0 0 (18) (0) (0) (0)
	retinal atrophy	3 (8)	0 0 0 0 (0) (0)	1 0 0 0 0 (2) (0) (0)	4 0 0 0 (10) (0) (0) (0)	7 0 0 0 (18) (0) (0) (0)
Grade < a > b (c) Significant	a: Number of animals examined at the ab: Number of animals with lesion c: b / a * 100					

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

REPORT TYPE : A1

SEX : MALE

(HPT150)

VPR : A1

PAGE: 10

Findings			4	1 (%)		3 4 (%) (%)	<u>1</u> (%)	2	800 ppr 41 3) (%)	4	(<u>1</u> %)	39 2) ppm 3 (%)	<u>4</u> (%)
organs/appendage}															
mineralization:cornea	0 (0) (<40> 0 0 0) (0	0 (0	0 (0)	0 (0)	1> 0 0 (0) (0)	0 (0)	0 (0)	<41> 0) (0	0 (0)	(1 3) (0 (0)
atrophy	1 (3) (<40> 0 0 0) (0	0	0 (0)	(44 0 (0)	4> 0 0 (0) (0)	0 (0)	0 (0	<41> 0) (0	0 (0)	(0 0) (0 (0)
lymphocytic infiltration	9 (23) () 7)) (16)	0 (0)	0 0 (0)	11 (27)	0 (0	0 (0	0 (0)	1 (3	3 3) (0	0 (0)	(0)
mesothelial hyperplasia	0 (0) (0 (0)			1 (2)			0 (0)	(0 0) (0	0	0 (0)
	organs/appendage) mineralization:cornea atrophy lymphocytic infiltration	No. of Animals on Study Grade 1 Findings 0 organs/appendage) mineralization:cornea 0 atrophy 1 atrophy 1 (3) (lymphocytic infiltration 9 (23) (No. of Animals on Study 40 Grade 1 2 3 (%) (%) (%) (%)	No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%) (%) organs/appendage) mineralization:cornea 0 0 0 0 0 (0) (0) (0) (0) (0) atrophy 1 0 0 0 (3) (0) (0) (0) lymphocytic infiltration 9 0 0 0 (23) (0) (0) (0) mesothelial hyperplasia 0 0 0 0 0	No. of Animals on Study 40 Grade 1 2 3 4 (%) (%) (%) (%) (%) organs/appendage) mineralization:cornea 0 0 0 0 0 0 (0) (0) (0) (0) (0) (0) atrophy 1 0 0 0 0 0 (3) (0) (0) (0) (0) lymphocytic infiltration 9 0 0 0 7 (23) (0) (0) (0) (16)	No. of Animals on Study	No. of Animals on Study 40 41 2 3 4 1 2 3 4	No. of Animals on Study 40 41 1 2 3 4 1 2 3 4 1 2 3 4 (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	No. of Animals on Study 40 44 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	No. of Animals on Study 40 44 41 41	No. of Animals on Study 40 41 41 41	No. of Animals on Study	No. of Animals on Study 40 44 41 2 3 4 4 1 2 3 4 4 1 2 3 4 4 4 4 4 4 4 4 4	No. of Animals on Study 40 40 41 41 39 Findings (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	No. of Animals on Study 40

APPENDIX K 4

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY

RAT: FEMALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

			Con 38	3	4_	_1	2	20 ppr 35	4	_	_1	·	39 2	3	4		1	2	00 pp 34		4
rgan	Findings	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%		(9	6)	(%)	(%)	(%)		(%)	(%)	(%		(%)
Integumentary	y system/appandage}																				
kin/app	ulcer	0 (0)	<38. 0 (0) (0	0 (0)	0 (0)	0	35> 0 (0)))) (<39 0 0)	0 (0)	0 (0)	(1 3)	0	34> 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
	hyperplasia:epidermis	0 (0)	0 (0) (0 0)	0 (0)	0 (0)	0 (0)	(0			(:		0 0)	0 (0)	0 (0)	(2 6)	0	(0		0
	scab	0 (0)	0 (0) (0	0 (0)	(0)	(0)	(0) (0)	0 0)	0 (0)	0 (0)	(2 6)	0 (0)	((0 0)
Respiratory :	system)																				
asal cavit	thrombus	1 (3)	<38 0 (0) (0	0 (0)	0 (0)	0	35> 0 (0				0 0) (<3 0 0)	0	0 (0)	(0	0	34> (0
	eosinophilic change:olfactory epithelium	17 (45)	19 (50) (0 (0)	0 (0)	14 (40)	20 (57)	(0	·) (0		1 (4		21 54)	0 (0)	0 (0)		25 74)	7 (21)	((•	0 * 0)
	eosinophilic change:respiratory epitheliu		0 (0) (0 (0)	0 (0)	23 (66)	0 (0)	(0			2 (5		0 0)	0 (0)	0 (0)		20 59)	0 (0)	((0 0)
Grade (a > b (c) Significant d	 a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 	Marked 4: Sever																			

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj
REPORT TYPE : A1
SEX : FEMALE

Organ	1	roup Name to. of Animals on Study trade	Control 38 2 3 4 (%) (%) (%) (9	4 <u>1</u> (%)	320 ppm 35 2 3 (%) (%)	<u>4</u> (%)	1 (%)	800 r 39 2 (%)	3 4 (%) (%)	<u>1</u> (%)	2000 ppr 34 2 3 (%) (%)	3 4
{Respiratory	system)											
masal cavit	inflammation:foreign body	2 (5)	<38> 0 0 0 (0) (0) (0	0 1 (3)	<35> 0 0 (0) (0)	0 (0)	2 (5) (<39> 0 0) (0 0 0 0) (0)	1 (3)	<34> 0 0 (0) (0	
lung	accumulation of foamy cells	1 (3)	<38> 0 0 0 (0) (0) (0 0 0	<35> 0 0 (0) (0)	0 (0)	1 (3) (<39> 0 (39)	0 0 0 0) (0)	1 (3)	<34> 0 0 (0) (0	
	bronchiolar—alveolar cell hyperplasia	2 (5)	1 0 1	0 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)	0 (0)	1 0	
{Hematopoieti	ic system)											•
oone marrow	granulation	14 (37)	<38> 0 0 (0) (0) (0 10 0) (29)	<35> 0 0 (0) (0)	0 (0)	11 (28)	<39> 1 (3) (0 0	9 (26)	<34> 0 0 (0) (0	
	increased hematopoiesis	1 (3)	0 0 (0) (0 4 (11)	0 0 (0)	0 (0)	(10)	0 (0) (0 0 0 0) (0)	3 (9)	0 0	
	granulopoiesis increased	(0)	0 0 (0) (0 0 0	0 0 (0)	0 (0)	0 (0)	0 (0) (0 0	1 (3)	0 (0)	
Grade < a > b (c)	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100	: Marked 4 : Sever te	9								<u></u>	

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

PAGE: 13

Organ	Findings	Group Name Control No. of Animals on Study 38 Grade 1 2 3 4 (%) (%) (%)	320 ppm 35 1 2 3 4 (%) (%) (%) (%)	800 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 34 1 2 3 4 (%) (%) (%) (%)
{Hematopoie	tic system}				
spleen	deposit of hemosiderin	<pre></pre>	<pre></pre>	31 5 0 0 (79) (13) (0) (0)	34> 17 13 0 0 * (50) (38) (0) (0)
	extramedullary hematopoiesis	4 1 0 0 (11) (3) (0) (0)	5 1 0 0 (14) (3) (0) (0)	5 0 0 0 (13) (0) (0) (0)	3 1 1 0 (9) (3) (3) (0)
{Circulator	y system}				
heart	myocardial fibrosis	<38> 4 0 0 0 (11) (0) (0) (0)	<pre></pre>	<pre></pre>	(34) 1 0 0 0 (3) (0) (0) (0)
{Digestive	system}				
stomach	ulcer:forestomach	<pre></pre>	<pre></pre>	39> 0 1 0 0 (0) (3) (0) (0)	<34> 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	hyperplasia:forestomach	2 0 0 0 (5) (0) (0) (0)	1 0 0 0 (3) (0) (0) (0)	2 0 0 0 0 (5) (0) (0)	0 0 0 0 0 (0) (0)
Grade <a> b (c) Significant	1: Slight 2: Moderate a: Number of animals examined at b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **	3: Marked 4: Severe the site : P ≤ 0.01 Test of Chi Square			

(HPT150)

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE PAGE: 14

Organ	Findings	Group Name Continue	3 4 (%) (%)	320 ppm 35 1 2 3 4 (%) (%) (%) (%)	800 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 34 1 2 3 4 (%) (%) (%) (%)
{Digestive s	system)					
stomach	erosion:glandular stomach	<383 1 0 (3) (0) (0 0	<pre></pre>	<pre></pre>	34> 1 0 0 0 (3) (0) (0) (0)
liver	herniation	3 0 (8) (0) (0 0	6 0 0 0 (17) (0) (0) (0)	3 0 0 0 (8) (0) (0) (0)	34> 2 0 0 0 (6) (0) (0) (0)
	angiectasis	1 0 (3) (0) (0 0	1 0 0 0 0 (3) (0) (0) (0)	1 0 0 0 0 (3) (0) (0)	0 0 0 0 0 (0) (0)
	necrosis:focal	0 1 (0) (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)
	lymphocytic infiltration	0 0 (0) (0) (0 0 0 0) (0)	2 0 0 0 0 (6) (6) (0) (0)	1 0 0 0 0 (3) (0) (0)	0 0 0 0 0 (0) (0)
	granulation	22 5 (58) (13) (0 0	17 4 0 0 (49) (11) (0) (0)	15 3 0 0 (38) (8) (0) (0)	15 2 0 0 (44) (6) (0) (0)
	clear cell focus	2 0 (5) (0) (0 0 0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (5) (0) (0) (0)	4 0 0 0 0 (12) (0) (0) (0)
	acidophilic cell focus	2 0 (5) (0) (0 0 0 0) (0)	0 1 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0)	5 3 0 0 (15) (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 b

(c) c:b/a*100

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

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj REPORT TYPE : A1
SEX : FEMALE

PAGE: 15

Organ		Group Name Control No. of Animals on Study 38 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 35 1 2 3 4 (%) (%) (%) (%)	800 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 34 1 2 3 4 (%) (%) (%) (%)
(Digestive s	system}				
iver	basophilic cell focus	<38> 22 3 0 0 (58) (8) (0) (0)	<35> 16 2 0 0 (46) (6) (0) (0)	<39> 16 2 0 0 (41) (5) (0) (0)	<34> 20 3 0 0 (59) (9) (0) (0)
	bile duct hyperplasia	14 0 0 0 (37) (0) (0) (0)	8 0 0 0 (23) (0) (0) (0)	12 0 0 0 (31) (0) (0) (0)	8 0 0 0 (24) (0) (0) (0)
pancreas	atrophy	38> 1 0 0 0 (3) (0) (0) (0)	35> 1 0 0 0 (3) (0) (0) (0)	2 0 0 0 (5) (0) (0) (0)	34> 1 0 0 0 (3) (0) (0) (0)
	islet cell hyperplasia	0 0 0 0 0 (0) (0)	1 0 0 0 (3) (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
(Urinary sy	stem)				
idney	infarct	<38> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<pre></pre>	<39> 0 0 0 0 0 0 0 0 0 0 0	34> 1 0 0 0 (3) (0) (0) (0)
	cyst	1 0 0 0 0 (3) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0
Grade (a > b (c) Significant	 a: Number of animals examined at the si b: Number of animals with lesion c: b / a * 100 				

(HPT150)

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

Organ	Group No. o Grade Findings	f Animals on Study 38	320 ppm 35 1 2 3 4 (%) (%) (%) (%)	800 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 34 1 2 3 4 (%) (%) (%) (%)
{Urinary sys	stem)				
kidney	chronic nephropathy	38> 20 2 0 0 (53) (5) (0) (0)	<pre></pre>	<pre></pre>	<pre></pre>
	papillary necrosis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (3) (0) (0)	3 1 0 0 (9) (3) (0) (0)
	mineralization:cortico-medullary junction	3 0 0 0 0 (8) (0) (0) (0)	6 0 0 0 0 (17) (0) (0) (0)	6 0 0 0 (15) (0) (0) (0)	2 0 0 0 0 (6) (6) (0) (0)
	mineralization:papilla	6 0 0 0 0 (16) (16) (16) (17)	7 0 0 0 (20) (0) (0) (0)	6 0 0 0 (15) (0) (0) (0)	12 0 0 0 (35) (0) (0) (0)
	urothelial hyperplasia:pelvis	8 0 0 0 (21) (0) (0) (0)	4 0 0 0 (11) (0) (0) (0)	15 0 0 0 (38) (0) (0) (0)	4 0 0 0 (12) (0) (0) (0)
	atypical tubule hyperplasia	1 0 0 0 0 (3) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
{Endocrine s	system)				
pituitary	cyst	<38> 8 0 0 0 (21) (0) (0) (0)	<35> 12 0 0 0 (34) (0) (0) (0)	<pre></pre>	<pre></pre>
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3: Man a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0.00				

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Organ	Findings	Group Name Control No. of Animals on Study 38 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 35 1 2 3 4 (%) (%) (%) (%)	800 ppm 39 1 2 3 4 (%) (%) (%)	2000 ppm 34 1 2 3 4 (%) (%) (%) (%)
(Endocrine s	ystem}				
ituitary	hyperplasia	9 0 0 0 (24) (0) (0) (0)	9 0 0 0 (26) (0) (0) (0)	39> 8 0 0 0 (21) (0) (0) (0)	34> 7 0 0 0 (21) (0) (0) (0)
	Rathke pouch	1 0 0 0 0 (3) (0) (0) (0)	3 0 0 0 0 (9) (0) (0)	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 (0)
thyroid	ultimibranchial body remanet	<37> 0 0 0 0 (0) (0) (0) (0)	35> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	34> 1 0 0 0 (3) (0) (0) (0)
	C-cell hyperplasia	4 0 0 0 (11) (0) (0) (0)	4 0 0 0 0 (11) (0) (0) (0)	6 0 0 0 (15) (0) (0) (0)	1 1 0 0 (3) (3) (0) (0)
parathyroid	hyperplasia	<38> 0 0 0 0 (0) (0) (0) (0)	35> 1 0 0 0 (3) (0) (0) (0)	39> 0 0 0 0 (0) (0) (0) (0)	(34) 0 0 0 0 (0) (0) (0) (0)
adrenal	hyperplasia:cortical cell	<38> 0 0 0 0 0 0 0 0 0 0 0	<35> 0 0 0 0 (0) (0) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)	(34) 0 0 0 0 (0) (0) (0) (0)
	hyperplasia:medulla	1 0 0 0 0 (3) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (0)	0 0 0 0 0 (0) (0)

b: Number of animals with lesion c: b / a * 100

(c)

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

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Organ	No	oup Name of Animals on Study ade 1 (%)	Cor 38 2 (%)	atrol 3 (%)	<u>4</u> (%)	<u>1</u> (%)	32 3 2 (%)	0 ppm 5 3 (%)	<u>4</u> (%)	1(%)	800 39 2 (%)	3 (%)	<u>4</u> (%)	(<u>1</u> %)	2000 34 2 (%)) ppm 1 3 (%)	<u>4</u> (%)
Indocrine sy	stem} focal fatty change:cortex	3 (8)	<38 1 (3)	0	0 (0)	3 (9)	<3 0 (0)	0	0 (0)	6 (15	;) (<39 0 0	3> 0 (0)	0 (0)		4 2) (<34 1 3)	0	0 (0)
Reproductive	system}																		
vary	thrombus	0 (0)	(3) (0)	0	0 (0)	0 (0)	0	4> 0 (0)	0 (0)	0)))) (<39 1 3)	9> 0 (0)	0 (0)		0 0) (<34 0 0)	0	0 (0)
	cyst	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	(())) (0 0)	0 (0)	0 (0)	(0 0) (0	0 (0)	(0)
terus	hyperplasia:epithelium	0 (0)	<3 0 (0)	0	0 (0)	0 (0)	0	0 (0)	0 (0)	, ((- ())) (<3: 0 0)	9> 0 (. 0)	0 (0)		1 3) (<3· 0 0)	0	0 (0)
	cystic endometrial hyperplasia	1 (3)	0 (0)	0 (0)	0 (0)	4 (11)	0 (0)	0 (0)	0 (0)	(8	3 3) (0 0)	0 (0)	0 (0)	(2 6) (0 0)	0 (0)	0 (0)
ammary gl	galactocele	6 (16)	<3 0 (0).	0	0 (0)	3 (9)	0	35> 0 (0)	0 (0)		3 3) (<3 0 0	9> 0 (0)	0 (0)	(3 9) (<3 0 0)	0	0 (0)
rade (a) b	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b/a*100	Marked 4: Sever	9													· -			

ANIMAL : RAT F344/DuCrj

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

REPORT TYPE : A1

SEX : FEMALE

PAGE: 19

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	Control 38 2 3 4 (%) (%)	320 ppm 35 1 2 3 4 (%) (%) (%) (%)	800 ppm 39 1 2 3 4 (%) (%) (%) (%)	2000 ppm 34 1 2 3 4 (%) (%) (%) (%)
{Special sen	se organs/appendage}					
өуө	cataract	6 (16)	<38> 0 0 0 (0) (0) (0)	3 0 0 0 (9) (0) (0) (0)	39> 2 0 0 0 (5) (0) (0) (0)	(34) 0 0 0 0 * (0) (0) (0) (0)
	retinal atrophy	6 (16)	0 0 0 0 (0) (0)	2 0 0 0 0 (6) (0) (0)	2 0 0 0 0 (5) (0) (0)	0 0 0 0 *
Harder gl	atrophy	0 (0)	<38> 0 0 0 (0) (0) (0)	<35> 0 0 0 0 (0) (0) (0) (0)	(39) 1 0 0 0 (3) (0) (0) (0)	34> 1 0 0 0 (3) (0) (0) (0)
	lymphocytic infiltration	13 (34)	0 0 0 0 (0) (0)	12 0 0 0 (34) (0) (0) (0)	16 0 0 0 (41) (0) (0) (0)	14 0 0 0 (41) (0) (0) (0)
{Musculoskel	letal system}					
bone	osteosclerosis	1 (3)	<38> 0 0 0 (0) (0) (0)	35> 1 0 0 0 (3) (0) (0) (0)	39> 1 0 0 0 (3) (0) (0) (0)	(34) 2 0 0 0 (6) (0) (0) (0)
Grade <a> a > b (c) Significant	1: Slight 2: Moderate a: Number of animals examined at b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 ***	$3: Marked$ $4: Severe$ the site $P \leq 0.01$ Test of Chi Squar				

(HPT150)

APPENDIX K 5

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY

RAT: MALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE PAGE: 1

Organ		O Name Control of Animals on Study 10 1 2 3 4 (%) (%) (%) (%)	320 ppm 6 6 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
{Integumentar	ry system/appandage)				
skin/app	inflammation	< 9> 0 0 0 0 0 0 0 0 0 0 0	(6> 1 0 0 0 (17) (0) (0) (0)	(0) (0) (0) (0) (0) (9)	0 0 0 0 (0) (0) (0) (0)
	epidermal cyst	1 0 0 0 0 (11) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0
{Respiratory	system)				
nasal cavit	thrombus	<pre></pre>	<pre></pre>	(9> 1 0 0 0 (11) (0) (0) (0)	<11> 2 0 0 0 (18) (0) (0) (0)
	cartilaginous metaplasia	1 0 0 0 (10) (0) (0) (0)	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	eosinophilic change:olfactory epithelium	1 0 0 0 0 (10) (10) (0)	2 1 0 0 (33) (17) (0) (0)	2 2 0 0 (22) (22) (0) (0)	2 0 0 0 0 (18) (0) (0) (0)
	eosinophilic change:respiratory epithelium	3 0 0 0 0 (30) (0) (0)	3 0 0 0 (50) (0) (0) (0)	5 0 0 0 (56) (·0) (0) (0)	0 0 0 0 0 (0) (0)
	inflammation:foreign body	1 0 0 0 (10) (0) (0) (0)	1 0 0 0 (17) (0) (0) (0)	4 0 0 0 (44) (0) (0) (0)	2 1 0 0 (18) (9) (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; $*: P \le 0.05$ **: $P \le 0.01$ Test of Chi Square

(HPT150)

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

· cell hyperplasia	<10> 1 0 0 0 10) (0) (0) (0) 0 0 0 0 (0) (0) (0	<pre></pre>	(9) 0 0 0 0 (0) (0) (0) (0)	<11> 2 0 0 0 (18) (0) (0) (0) 0 0 0 0
· cell hyperplasia	1 0 0 0 (10) (0) (0) (0)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 0 0 (18) (0) (0) (0)
cell hyperplasia				0 0 0 0
			(22) (0) (0) (0)	(0) (0) (0) (0)
əsis	<10> 0 0 0 0 (0) (0) (0) (0)	2 0 0 0 (33) (0) (0) (0)	<pre></pre>	3 0 0 0 (27) (0) (0) (0)
eased	0 0 0 0 0 (0) (0) .	0 0 0 0 0 (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (18) (0) (0)
rin	(10) 1 3 2 0 (10) (30) (20) (0)	(6) 1 2 0 0 (17) (33) (0) (0)	<pre></pre>	<pre></pre>
topoiesis	0 0 0 1 (0) (10)	1 0 1 0 (17) (0) (17) (0)	1 0 1 0 (11) (0) (11) (0)	0 0 1 0 (0) (9) (0)
t	opoiesis Moderate 3: Marked 4: examined at the site with lesion	(10) (30) (20) (0) (10) (30) (20) (0) (10) (30) (20) (0) (10) (10) (30) (30) (30) (30) (30) (30) (30) (3	(10) (30) (20) (0) (17) (33) (0) (0) (10) (30) (20) (0) (17) (33) (0) (0) (17) (0) (17) (0) (17) (0) (17) (0) (17) (0) (17) (in

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name Control No. of Animals on Study 10 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 6 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
{Circulatory	system)				
neart	thrombus	0 1 0 0 (0) (10) (0) (0)	<pre></pre>	0 0 0 0 0 0 (0) (0)	1 0 0 0 (9) (0) (0) (0)
	myocardial fibrosis	4 0 0 0 (40) (0) (0) (0)	3 0 0 0 (50) (0) (0) (0)	5 0 0 0 (56) (0) (0) (0)	5 2 0 0 (45) (18) (0) (0)
{Digestive s	ystem)				
stomach	ulcer:forestomach	\(\lambda 10 > \) \(\begin{array}{cccccccccccccccccccccccccccccccccccc	<pre></pre>	0 1 0 0 (0) (11) (0) (0)	<11> 0 0 0 0 (0) (0) (0) (0)
	hyperplasia:forestomach	2 0 0 0 (20) (0) (0) (0)	2 0 0 0 0 (33) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (9) (0) (0)
	erosion:glandular stomach	0 0 0 0 0 (0) (0) (0)	1 0 0 0 (17) (0) (0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (18) (0) (0) (0)
	ulcer:glandular stomach	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (17) (0) (0)	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 0 (0) (0)
	fibrosis glandular stomach	0. 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (11) (0) (0) (0)	0 0 0 0 0 (0) (0) (0)

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name No. of Animals on Study Grade 1 (%)	Control 10 2 3 4 (%) (%)	320 ppm 5 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
{Digestive	system}					
liver	herniation	(0) (<10> 0 0 0 0) (0) (0)	1 0 0 0 (17) (0) (0) (0)	<pre></pre>	1 0 0 0 (9) (0) (0) (0)
	necrosis:central	0 (0) (1 0 0	0 0 0 0 0 (0) (0) (0)	1 0 0 0 0 (11) (0) (0) (0)	0 3 0 0 (0) (27) (0) (0)
	necrosis:focal	(0) (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 (0) (0)	0 1 0 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 0 0 0 0	1 0 0 0 (17) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	granulation	1 (10) (1 0 0 10) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0) (0)
	clear cell focus	1 (10) (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	acidophilic cell focus	0 (0) (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	1 0 0 0 0 (9) (0) (0)
	basophilic cell focus	2 (20) (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 (0) (0)	3 0 0 0 0	7 1 0 0 * (64) (9) (0) (0)

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

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

b b: Number of animals with 1 (c) c: b/a*100

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

REPORT	TIPE	٠	AI	
SEX		:	MALE	

Organ	1	roup Name	320 ppm 6 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%)
{Digestive s	ystem)				
liver	spongiosis hepatis	<10> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	(0) (0) (0) (0) (0) (9)	\(\lambda 11 > \) \(1 0 0 \) \(9 \rangle (0) (0) (0) \)
	bile duct hyperplasia	9 0 0 0	4 0 0 0 0 (67) (0) (0) (0)	5 3 0 0 (67) (33) (0) (0)	9 0 0 0 0 (82) (0) (0) (0)
	cholangicfibrosis	0 0 0 0 0 (0) (0)	1 0 0 0 (17) (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
pancreas	atrophy	0 0 0 0 (0) (0) (0) (0)	<pre></pre>	(9> 1 0 0 0 (11) (0) (0) (0)	<11> 0 0 0 0 (0) (0) (0) (0)
	arteritis	0 0 0 0 0 (0) (0)	0 1 0 0 (0) (17) (0) (0)	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)
	islet cell hyperplasia	1 0 0 0 (10) (0) (0) (0)	0 0 0 0 0 (0) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
{Urinary sys	stem)				
kidney	chronic nephropathy	\$\\ 5 \ 0 \ 1 \ 0 \\ (50) \ (0) \ (10) \ (0)	<pre></pre>	<pre></pre>	(11) 1 4 5 1 ** (9) (36) (45) (9)
Grade < a > b (c)	1: Slight 2: Moderate 3 a: Number of animals examined at the si b: Number of animals with lesion c: b/a*100	: Marked 4 : Severe te			

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

Organ		p Name	320 ppm 6 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
{Urinary sys	stem)				
kidney	hydronephrosis	(10) 1 0 0 0 (10) (0) (0) (0)	< 6> 0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)
	papillary necrosis	0 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)
	mineralization:cortico-medullary junction	1 0 0 0 0 (10) (10) (10)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	mineralization:papilla	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	9 0 0 0 *** (100) (0) (0) (0)	6 4 0 0 ** (55) (36) (0) (0)
	urothelial hyperplasia:pelvis	0 0 0 0 0	1 0 0 0 (17) (0) (0) (0)	5 0 0 0 * (56)(0)(0)(0)	4 0 0 0 0 (36) (0) (0) (0)
(Endocrine	system)				
pituitary	hyperplasia	<10> 0 0 0 0 0 0 0 0 0 0 0	<pre></pre>	1 0 0 0 (11) (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 0 0 0 0 (0) (0) (0)	1 0 0 0 0 (9) (0) (0)
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3: Ma a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤ 0.0				

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : MALE

Findings	Group Name Control No. of Animals on Study 10 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 6 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
em}				
C-cell hyperplasia	<10> 2 0 0 0 (20) (0) (0) (0)	<pre></pre>	0 0 0 0 (0) (0) (0) (0)	<pre></pre>
hyperplasia:medulla	0 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	0 0 0 0 (0) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)
focal fatty change:cortex	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0)	1 0 0 0 0 (11) (0) (0) (0)	0 0 0 0 0 (0) (0)
system}				
atrophy	5 1 0 0 (50) (10) (0) (0)	3 0 0 0 (50) (0) (0) (0)	<pre></pre>	5 3 0 0 (45) (27) (0) (0)
interstitial cell hyperplasia	2 0 0 0 0 (20) (20) (30) (30)	1 0 0 0 (17) (0) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (9) (0) (0)
spermatogenic granuloma	0 0 0 0 (0) (0) (0) (0)	(6) 1 0 0 0 (17) (0) (0) (0)	(0) (0) (0) (0) 0 0 0 0 0 0 0 0 0	0 0 0 0 (0) (0) (0) (0)
	em) C-cell hyperplasia hyperplasia:medulla focal fatty change:cortex system) atrophy interstitial cell hyperplasia	No. of Animals on Study 10 Grade 1 2 3 4 4 (%)	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 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 4 2 0 0 0 0 0 0 0 0 0

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

DEAD AND MORIBUND ANIMALS (0-105W)

)rgan	Findings	Group Name Control No. of Animals on Study 10 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 6 1 2 3 4 (%) (%) (%) (%)	800 ppm 9 1 2 3 4 (%) (%) (%) (%)	2000 ppm 11 1 2 3 4 (%) (%) (%) (%)
{Reproductiv	re system}				
semin ves	inflammation	<10> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	(0) (0) (0) (0) 0 0 0 0 0 (0) (0)	(11) 1 0 0 0 (9) (0) (0) (0)
prostate	inflammation	<10> 1 2 0 0 (10) (20) (0) (0)	<pre></pre>	<pre></pre>	<pre></pre>
	hyperplasia	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (11) (0) (0) (0)	1 0 0 0 0 (9) (0) (0)
ammary gl	galactocele	1 0 0 0 (10) (0) (0) (0)	(6) 1 0 0 0 (17) (0) (0) (0)	<pre></pre>	0 0 0 0 (0) (0) (0) (0)
Vervous sys	stem}				
rain	hemorrhage	0 0 0 0 (0) (0) (0) (0)	<pre></pre>	<pre></pre>	(11) 1 0 0 0 (9) (0) (0) (0)
spinal cord	hemorrhage	(0) (0) (0) (0)	< 6> 0 0 0 0 (0) (0) (0) (0)	<pre></pre>	1 0 0 0 (9) (0) (0) (0)
Grade (a > b (c) Significant	1: Slight 2: Moderate 3 a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤				

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : MALE

PAGE: 9

ings	Grade	<u>1</u> (%)	2 (%)	(%)	4	_1_	2	2	3	4	1		2	3	4		1	2	3	4
				(70)	(%)	(%)	(9	6) ((%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
s/appendage}																				
ract	(1 (10)	0	0	0 (0)	0 (0)	()	< 6> 0 0) (0 (0) (0 0)	0))) (0	0	0 (0)	(1 9) (0	0	0 (0)
phy	1	0 (0) (0	0	0 (0)	1 (17)	· (:	< 6> 0 0) (0	0 0)	(())) (< s 0 0)	(0) (0)	0 (0)	(0 0) (0	0	0 (0)
hocytic infiltration		0 (0	0 (0)	0 (0)	1 (17)) (0 0) (0 (0 0)	(())) (0	0 (0)	0 (0)	(0 0) (0 0)	0 (0)	(0
1	chy hocytic infiltration light 2: Moderate 3	ohy locytic infiltration	1 (10) (ohy 0 (0) (nocytic infiltration 0 (0) (ight 2: Moderate 3: Marked 4: Severe	cact 1 0 (10) (0) (chy 0 0 0 (0) (0) (chocytic infiltration 0 0 (0) (0) (0) (0) (0) (0) (0) (0) (0)	Compared Compared	Tract 1 0 0 0 0 (10) (0) (0) (0) Shy 0 0 0 0 0 0 (0) (0) (0) (0) 10 0 0 0 0 0 (0) (0) (0) (0) 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tact 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 (10) (10) (10) (10) (10) (Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tract 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

(HPT150)

APPENDIX K 6

HISTOLOGICAL FINDINGS: NON-NEOPLASTIC LESIONS: SUMMARY

RAT: FEMALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

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

REPORT TYPE : A1

SEX : FEMALE

)rgan		up Name Control of Animals on Study 12 de 1 2 3 (%) (%) (%)	320 ppm 15 4 1 2 3 (%) (%) (%) (%)	<u>4</u> (%) <u>1</u> (%)	800 ppm 11 2 3 4 (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%)
(Integumentary	v system/appandage)					
kin/app	scab	0 0 0 (0) (0) (0) 1	<15> 0 1 0 0 (0) (7) (0) (0)	0 0 (0) (<11> 0 0 0 0 0 0 0 0 0 0 0	<16> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Respiratory :	system)					
asal cavit	thrombus	\(\lambda \) \(0 4 0 0 (0) (27) (0) (0)	0 3 (27) (<11> 0 0 0 (0) (0) (0)	<pre></pre>
	cartilaginous metaplasia	1 0 0 (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)
	eosinophilic change:olfactory epithelium	6 0 1 (50) (0) (8)	0 6 1 0 (40) (7) (0)	0 3 (27)	1 0 0 (9) (0) (0)	4 1 0 0 (25) (6) (0) (0)
	eosinophilic change:respiratory epitheli	4 0 0 (33) (0) (0)	0 5 0 0 (33) (0) (0)	0 2 (18)	0 0 0 (0) (0)	1 0 0 0 0 (6) (0) (0)
ung	congestion	<12> 0 0 0 (0) (0) (0)	<15> 0 0 0 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)	1 0 0 0 (6) (0) (0) (0)

< a >

a: Number of animals examined at the site

b

b: Number of animals with lesion

(c) c:b/a*100

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

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

organ		p Name	320 ppm 15 1 2 3 4 (%) (%) (%) (%)	800 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%)
Respiratory :	system}				
ung	necrosis:zonal	<12> 0 0 0 0 0 0 0 0 0 0 0	<15> 0 0 0 0 (0) (0) (0) (0)	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(18) 0 0 0 0 (0) (0) (0) (0)
Hematopoleti	c system}				
one marrow	granulation	<12> 0 0 0 0 (0) (0) (0) (0)	<15> 1 0 0 0 (7) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<16> 1 0 0 0 (6) (0) (0) (0)
	increased hematopoiesis	4 0 0 0 (33) (0) (0) (0)	5 0 0 0 (33) (0) (0) (0)	5 0 0 0 (45) (0) (0) (0)	11 0 0 0 (69) (0) (0) (0)
	granulopoiesis:increased	1 0 0 0 0 (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)
pleen	deposit of hemosiderin	\(\lambda 12 \rangle \) \(1 5 0 \\ (8) (42) (0) (0) \)	<15> 2 1 0 0 (13) (7) (0) (0)	\(\lambda 11 \) \(1 \) \(1 \) \(9 \) \(9 \) \(9 \) \(9 \) \(9 \) \(0 \)	3 3 0 0 (19) (19) (0) (0)
	fibrosis	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (6) (6) (0) (0)
rade a > b	1: Slight 2: Moderate 3: Ma a: Number of animals examined at the site b: Number of animals with lesion c: b/a * 100	rked 4 : Severe			

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Organ	Gro No. Gra Findings	oup Name	320 ppm 15 1 2 3 4 (%) (%) (%) (%)	800 ppm 11 1 2 3 4 (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%)
{Hematopoie	otic system)				
spleen	extramedullary hematopoiesis	<pre></pre>	<15> 0 0 4 0 (0) (0) (27) (0)	(11) 0 4 2 0 (0) (36) (18) (0)	<16> 0 3 4 0 0 0 (19) (25) (0)
{Circulator	ry system}				
heart	thrombus	(12> 0 0 0 0 (0) (0) (0) (0)	<15> 0 0 0 0 (0) (0) (0) (0)	<11> 1 0 0 0 (9) (0) (0) (0)	<16> 1 0 0 0 (6) (0) (0) (0)
	mineralization	1 0 0 0 0 (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)
	myocardial fibrosis	1 0 0 0 (8) (0) (0) (0)	2 0 0 0 0 (13) (0) (0) (0)	1 0 0 0 0 (9) (0) (0)	3 0 0 0 (19) (0) (0) (0)
{Digestive	system)				
tongue	fibrosis	<12> 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<15> 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 (9) (0) (0) (0)	<16> 0 0 0 0 0 0 0 0 0 0 0 0 0
Grade <a> b (c)	1: Slight 2: Moderate 3: Na a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100 t difference; * P ≤ 0.05 **: P ≤ 0.05				

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

PAGE: 13

)rgan	Findings	Group Name Control No. of Animals on Study 12 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 15 1 2 3 4 (%) (%) (%) (%)	800 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%)
(Digestive s	system}				
stomach	mineralization	<12> 0 0 0 0 (0) (0) (0) (0)	1 0 0 0 (7) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<16> 0 0 0 0 0 0 0 0 0 0 0
	ulcer:forestomach	1 1 0 0 (8) (8) (0) (0)	1 1 0 0 (7) (7) (0) (0)	0 1 0 0 (0) (0) (0)	1 0 0 0 0 (6) (6) (7) (7)
	hyperplasia:forestomach	1 0 0 0 0 (8) (0) (0) (0)	3 0 0 0 0 (20) (0) (0)	1 0 0 0 0 (9) (0) (0)	2 0 0 0 0 (13) (0) (0) (0)
	erosion:glandular stomach	0 1 0 0 (0) (0)	2 0 0 0 (13) (0) (0) (0)	1 0 0 0 0 (9) (0) (0)	1 1 0 0 (6) (6) (7)
	ulcer:glandular stomach	0 0 0 0 0 (0) (0)	1 0 0 0 0 (7) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
iver	herniation	2 0 0 0 0 (17) (0) (0) (0)	<15> 3 0 0 0 (20) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	<16> 2 0 0 0 (13) (0) (0) (0)
	necrosis:zonal	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (9) (0) (0)	0 0 0 0
	necrosis:central	0 2 0 0 (0) (17) (0) (0)	1 1 0 0 (7) (7) (0) (0)	2 1 0 0 (18) (9) (0) (0)	4 0 0 0 (25) (0) (0) (0)

Grade 1 : Slight 2 : Moderate 3 : Marked

4 : Severe

⁽a) a : Number of animals examined at the site

b b: Number of animals with lesion

c:b/a*100 (c)

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

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

Organ		Croup Name Control No. of Animals on Study 12 Grade 1 2 3 4 (%) (%) (%) (%)	320 ppm 15 1 2 3 4 (%) (%) (%) (%)	800 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%)
{Digestive s	system)				
liver	basophilic cell focus	1 0 0 0 (8) (0) (0) (0)	<15> 2 0 0 0 (13) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0	(16) 1 0 1 0 (6) (0) (6) (0)
	bile duct hyperplasia	3 0 0 0 (25) (0) (0) (0)	4 0 0 0 0 (27) (0) (0) (0)	2 0 0 0 0 (18) (0) (0) (0)	1 0 0 0 0 (6) (6) (7)
pancreas	atrophy	0 0 0 0 (0) (0) (0) (0)	<15> 0 0 0 0 (0) (0) (0) (0)	\(\begin{array}{cccccccccccccccccccccccccccccccccccc	<16> 0 0 0 0 0 0 0 0 0 0 0
{Urinary sys	stem)				
kidney	infarct	<12> 0 0 0 0 0 0 0 0 0 0 0 0	<pre></pre>	1 0 0 0 (9) (0) (0) (0)	<16> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	inflammatory infiltration	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0) (0)	1 0 0 0 0 (9) (0) (0)	0 0 0 0 0 (0)
	chronic nephropathy	2 0 0 0 0 (17) (0) (0) (0)	2 0 0 0 0 (13) (0) (0) (0)	0 0 1 0	5 0 0 0 (31) (0) (0) (0)
Grade <a>> b (c) Significant	1: Slight 2: Moderate 3 a: Number of animals examined at the s b: Number of animals with lesion c: b / a * 100 difference; *: P ≤ 0.05 **: P ≤				

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX

PAGE: 15 : FEMALE 800 ppm 2000 ppm 320 ppm Group Name Control

Organ	No	ob. of Animals on Study 12 rade 1 2 3 4 (%) (%) (%) (%)	15 1 2 3 4 (%) (%) (%) (%)	11 2 3 4 (%) (%) (%) (%)	16 (%) (%) (%) (%)
{Urinary sys	tem)				
kidney	hydronephrosis	<12> 0 0 0 0 0 0 0 0 0	1 0 0 0 (7) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	1 0 0 0 (6) (0) (0) (0)
	papillary necrosis	0 0 0 0 0 (0) (0)	1 0 0 0 0 (7) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 (6) (6) (0)
	mineralization:cortico-medullary junction	2 0 0 0 0 (17) (0) (0) (0)	1 0 0 0 0 (7) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (6) (0) (0)
	mineralization:papilla	3 0 0 0 (25) (0) (0) (0)	2 0 0 0 0 (13) (0) (0) (0)	3 0 0 0 (27) (0) (0) (0)	5 0 0 0 (31) (0) (0) (0)
	urothelial hyperplasia:pelvis	2 0 0 0 0 (17) (0) (0) (0)	1 0 0 0 0 (7) (0) (0) (0)	0 0 0 0 0 (0) (0)	2 0 0 0 0 (13) (0) (0) (0)
	necrosis:cortex	0 0 0 0 0 (0) (0)	0 0 1 0 (0) (7) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
{Endocrine s	system)				
pituitary	cyst	1 0 0 0 (8) (0) (0) (0)	<15> 1 0 0 0 (7) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	<16> 2 0 0 0 (13) (0) (0) (0)

4 : Severe

3 : Marked Grade 1 : Slight 2 : Moderate

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

ь c:b/a*100 (c)

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

(HPT150)

BAIS3

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

DEAD AND MORIBUND ANIMALS (0-105W)

Organ	No.	oup Name Control of Animals on Study 12 ade 1 2 3 4 (%) (%) (%) (%)	320 ppm 15 1 2 3 4 (%) (%) (%) (%)	800 ppm 11 1 2 3 4 (%) (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%) (%)
{Endocrine s	system}				
pituitary	hyperplasia	0 0 0 0 (0) (0) (0) (0)	(0) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	(16) 1 0 0 0 (6) (0) (0) (0)
	Rathke pouch	0 0 0 0 0	1 0 0 0 0 (7) (0) (0)	0 0 0 0 0 (0) (0)	1 0 0 0 0 (6) (6) (0) (0)
thyroid	C-cell hyperplasia	(12> 0 0 0 0 (0) (0) (0) (0)	(15) 1 0 0 0 (7) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 (7) (0) (0) (0)
adrenal	focal fatty change:cortex	<12> 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<15> 1 0 0 0 (7) (0) (0) (0)	(11) 1 0 0 0 (9) (0) (0) (0)	(16) 1 0 0 0 (6) (0) (0) (0)
	necrosis:cortex	0 1 0 0 (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
{Reproducti	ve system}				
ovary	cyst	<12> 0 0 0 0 0 0 0 0 0 0 0 0	<pre></pre>	<11> 0 0 0 0 (0) (0) (0) (0)	<16> 0 0 1 0 (0) (0) (6) (0)
Grade <a>> b (c)	1: Slight 2: Moderate 3: a: Number of animals examined at the site b: Number of animals with lesion c: b/a*100	Marked 4 : Severe			

HISTOLOGICAL FINDINGS : NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

)rgan	Group Nan No. of Ar Grade Findings	te Control 12 12 3 4 (%) (%) (%) (%)	320 ppm 15 1 2 3 4 (%) (%) (%) (%)	800 ppm 11 1 2 3 4 (%) (%) (%)	2000 ppm 16 1 2 3 4 (%) (%) (%) (%)
(Reproductive	e system)				
terus	cystic endometrial hyperplasia	1 0 0 0 (8) (0) (0) (0)	(15) 0 0 0 0 (0) (0) (0) (0)	0 0 0 0 (0) (0) (0) (0)	<16> 0 0 0 0 0 0 0 0 0 0 0
aomary gl	galactocele	1 0 0 0 (8) (0) (0) (0)	4 0 0 0 (27) (0) (0) (0)	1 0 0 0 (9) (0) (0) (0)	3 0 0 0 (19) (0) (0) (0)
Special sens	se organs/appendage}				
ye	cataract	<12> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<15> 1 0 0 0 (7) (0) (0) (0)	<11> 0 0 0 0 (0) (0) (0) (0)	(16) 0 0 0 0 (0) (0) (0) (0)
	retinal atrophy	0 0 0 0 0 0 (0)	1 0 0 0 0 (7) (0) (0)	0 0 0 0 0 (0) (0)	0 0 0 0 0 (0) (0)
	keratitis	0 1 0 0 (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)
arder gl	atrophy	1 0 0 0 (8) (0) (0) (0)	<pre></pre>	0 0 0 0 (0) (0) (0) (0)	\(\langle 15 \) \(1 0 0 \) \(6 \rangle (0 \rangle (0) (0) \)
Grade (a > b (c)	1: Slight 2: Moderate 3: Marked a: Number of animals examined at the site b: Number of animals with lesion c: b / a * 100	4 : Severe			

HISTOLOGICAL FINDINGS :NON-NEOPLASTIC LESIONS (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

rgan Findings	Grade 1 2 3 4 (%) (%) (%) (%)	15 1 2 3 4 (%) (%) (%) (%)	1 2 3 4 (%) (%) (%) (%)	16 (%) (%) (%) (%) (%)
Special sense organs/appendage)				
arder gl lymphocytic infiltration	4 0 0 0 (33) (0) (0) (0)	\$\begin{array}{cccccccccccccccccccccccccccccccccccc	<11> 1 0 0 0 (9) (0) (0) (0)	\(\lambda 16 > \) \(1 0 0 \) \(6) \(0) \(0) \(0) \)
Musculoskeletal system)				
uscle mineralization	<12> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 (7) (0) (0) (0)	<11> 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 (0) (0) (0) (0)
rade 1: Slight 2: Moderate a > a: Number of animals examined at th b b: Number of animals with lesion c) c: b / a * 100 ignificant difference; *: P ≤ 0.05 **:	3 : Marked 4 : Severe e site P ≤ 0.01 Test of Chi Square			

APPENDIX L 1

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

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

0

64

0

62

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

NO. OF MALIGNANT TUMORS
NO. OF TOTAL TUMORS

NO. OF BENIGN TUMORS
NO. OF MALIGNANT TUMORS

NO. OF TOTAL TUMORS

REPORT TYPE : A1 SEX : MALE

800 ppm 2000 ppm Group Name 320 ppm Time-related Items_ Control ____Weeks_ 0 1 0 0 0 - 52 NO. OF EXAMINED ANIMALS 0 0 1 NO. OF ANIMALS WITH TUMORS 0 0 NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS NO. OF BENIGN TUMORS

53 - 78	NO. OF EXAMINED ANIMALS	2	1	2	1
	NO. OF ANIMALS WITH TUMORS NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS	1 0 1	1 1 0	2 2 0	1 1 0

	NO. OF TOTAL TUMORS	2	ı	۷	
79 - 104	NO. OF EXAMINED ANIMALS	8	4	7	10
	NO. OF ANIMALS WITH TUMORS NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS	8 5 3	4 0 4	7 1 6	9 1 8

NO. OF BENIGN TUMORS	8	6	14	15
NO. OF MALIGNANT TUMORS	4	3	3	6
NO. OF TOTAL TUMORS	12	9	17	21

NO. OF EXAMINED ANIMALS 33 37 33 29 32 37 33 NO. OF ANIMALS WITH TUMORS 15 7 NO. OF ANIMALS WITH SINGLE TUMORS 8 22 18 24 28 NO. OF ANIMALS WITH MULTIPLE TUMORS 80 57 57 NO. OF BENIGN TUMORS 62 5 6 6 NO. OF MALIGNANT TUMORS

68

86

(HPT070)

105 - 105

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

PAGE: 2

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

Time-related Weeks	Items	Group Name	Control	320 ppm	800 ppm	2000 ppm	
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50	
	NO. OF ANIMALS WITH TUMORS		41	43	42	39	
	NO. OF ANIMALS WITH SINGLE TUMORS		13	11	18	9	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		28	32	24	30	
	NO. OF BENIGN TUMORS		71	87	71	72	
	NO. OF MALIGNANT TUMORS		11	10	12	12	
	NO. OF TOTAL TUMORS		82	97	83	84	
				·····			DATO

(HPT070) BAIS3

APPENDIX L 2

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

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

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

ime-related Weeks	Items	Group Name	Control	320 ppm	800 ppm	2000 ppm	
0 - 52	NO. OF EXAMINED ANIMALS		0	0	0	0	
	NO. OF ANIMALS WITH TUMORS		0	0	0	0	
	NO. OF ANIMALS WITH SINGLE TUMORS		0	0	0	0 0	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		0	U	0	U	
	NO. OF BENIGN TUMORS		0	0	0	0	
	NO. OF MALIGNANT TUMORS		0	0	0	0 0	
	NO. OF TOTAL TUMORS		0	0	· · · · · · · · · · · · · · · · · · ·	0	
53 - 78	NO. OF EXAMINED ANIMALS		3	3	4	1	
	NO. OF ANIMALS WITH TUMORS		3	3	3	1 .	
	NO. OF ANIMALS WITH SINGLE TUMORS		1	3	3	1	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		2	0	0	0	
	NO. OF BENIGN TUMORS		3	0	1	0	
	NO. OF MALIGNANT TUMORS		2	3	2	1	
	NO. OF TOTAL TUMORS		5	3	3	1	
79 - 104	NO. OF EXAMINED ANIMALS		9	12	7	15	
	NO. OF ANIMALS WITH TUMORS		9	12	7	15	
	NO. OF ANIMALS WITH SINGLE TUMORS		5	8	5	11	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		4	4	2	4	
	NO. OF BENIGN TUMORS		8	9	4	9	
	NO. OF MALIGNANT TUMORS		5	9	5	11	
	NO. OF TOTAL TUMORS		13	18	9	20	
105 - 105	NO. OF EXAMINED ANIMALS		29	28	32	29	
	NO. OF ANIMALS WITH TUMORS		19	19	16	20	
	NO. OF ANIMALS WITH SINGLE TUMORS		13	16	10	11	
	NO. OF ANIMALS WITH MULTIPLE TUMORS		6	3	6	9	
	NO. OF BENIGN TUMORS		22	20	21	27	
	NO. OF MALIGNANT TUMORS		5	2	3	3	
	NO. OF TOTAL TUMORS		27	22	24	30	

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

PAGE: 4

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

Time-relatedWeeks	Items	Group Name	Control	320 ppm	800 ppm	2000 ppm	
0 - 105	NO. OF EXAMINED ANIMALS		50	50	50	50	
	NO. OF ANIMALS WITH TUMORS		31	34 27	26	36 23	
	NO. OF ANIMALS WITH SINGLE TUMORS NO. OF ANIMALS WITH MULTIPLE TUMORS		19 12	7	18 8	13	
	NO. OF BENIGN TUMORS		33	29	26	36	
	NO. OF MALIGNANT TUMORS NO. OF TOTAL TUMORS		12 45	14 43	10 36	15 51	
							D4700

BAIS3 (HPT070)

APPENDIX M 1

HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS: SUMMARY

RAT: MALE: (2-YEAR STUDY)

: RAT F344/DuCrj

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

ANIMAL

SEX

: MALE

800 ppm 2000 ppm Group Name Control 320 ppm 50 50 50 No. of animals on Study 50 Organ_ Findings_ {Integumentary system/appandage} <50> <50> <50> <49> skin/app 3 (6%) 4 (8%) 1 (2%) 2 (4%) squamous cell papilloma 0 (0%) 0 (0%) 1 (2%) 1 (2%) basal cell epithelioma 3 (6%) 3 (6%) 2 (4%) 0 (0%) keratoacanthoma 0 (0%) 2 (4%) 0 (0%) 0 (0%) sebaceous adenoma 1 (2%) 0 (0%) 0 (0%) 1 (2%) squamous cell carcinoma 1 (2%) 0 (0%) 0 (0%) 0 (0%) trichoepithelioma:malignant <50> <50> <50> <50> subcutis 4 (8%) 2 (4%) 6 (12%) 2 (4%) fibroma 0 (0%) 0 (0%) 0 (0%) 1 (2%) lipoma 0 (0%) 1 (2%) 0 (0%) 0 (0%) osteosarcoma 0 (0%) 0 (0%) 0 (0%) 1 (2%) schwannoma:malignant {Respiratory system} <50> <50> <50> <50> lung 1 (2%) 1 (2%) 1 (2%) bronchiolar-alveolar adenoma 4 (8%) 0 (0%) 0 (0%) 0 (0%) 1 (2%) bronchiolar-alveolar carcinoma < a > a : Number of animals examined at the site c : b / a * 100 b (c) b: Number of animals with neoplasm

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (0-105W)

REPORT TYPE : A1
SEX : MALE

(HPT085)

)rgan	Findings No. of animals	Control on Study 50	320 ppm 50	800 ppm 50	2000 ppm 50
Hematopoietic	system)				
spleen	hemangioma	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	mononuclear cell leukemia	5 (10%)	8 (16%)	5 (10%)	1 (2%)
(Digestive sys	tem)				
oral cavity	squamous cell papilloma	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
tongue	squamous cell papilloma	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
stomach	squamous cell carcinoma	<50> 1 (2%)	<50> 0 (0%)	<49> 0 (0%)	<50> 0 (0%)
	schwannoma:nalignant	0 (0%)	0 (0%)	0 (0%)	1 (2%)
liver	hepatocellular adenoma	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 6 (12%)
	cholangiocellular adenoma	0 (0%)	1 (2%)	0 (0%)	0 (0%)
	hepatocellular carcinoma	0 (0%)	0 (0%)	1 (2%)	2 (4%)
pancreas	islet cell adenoma	<50> 2 (4%)	<50> 7 (14%)	<50> 0 (0%)	<50> 2 (4%)
{Urinary syste	om)				
kidney	renal cell adenoma	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX

: MALE

Organ	Findings_	Group Name No. of animals on Study	Cont	orel 50	32	0 ppm 50	80	00 ppm 50	200	00 ppm 50
(Urinary system	n)									
kidney	renal cell carcinoma		0 (50> 0%)		<50> (2%)	0	<50> (0%)	1	<50> (2%)
	nephroblastoma		0 (0%)	1	(2%)	0	(0%)	0	(0%)
rin bladd	transitional cell papilloma		0 (50> 0%)		<50> (2%)	0	<50> (0%)	0	<50> (0%)
Endocrine sys	tem)									
pituitary	adenoma		19 (50> 38%)	16	<50> (32%)	12	<50> (24%)	9	<50> (18%)
hyroid	C-cell adenoma		6 (50> 12%)	10	<50> (20%)	6	<50> (12%)	6	<50> (12%)
	follicular adenoma		0 (0%)	1	(2%)	3	(6%)	1	(2%)
	C-cell carcinoma		1 (2%)	0	(0%)	1	(2%)	0	(0%)
	follicular adenocarcinoma		0 (0%)	1	(2%)	0	(0%)	0	(0%)
adrenal	pheochromocytoma		4 (49> 8%)	6	<50> (12%)	6	<50> (12%)	3	<50> (6%)
	cortical adenoma		0 (0%)	1	(2%)	1	(2%)	0	(0%)
	pheochromocytoma:malignant		1 (2%)	0	(0%)	0	(0%)	0	(0%)
{Reproductive	system}									
testis	interstitial cell tumor		34 (50> (68%)	41	<50> (82%)	41	<50> (82%)	40	<50> (80%)

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

(HPT085)

SEX : MALE

)rgan		roup Name c. of animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
Reproductive	system}					
testis	rete testis ademoma		<50> 4 (8%)	<50> 1 (2%)	<50> 5 (10%)	<50> 1 (2%)
nammary gl	fibroadenoma		<50> 2 (4%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
prep/cli gl	adenoma		<50> 3 (6%)	<50> 1 (2%)	<50> 2 (4%)	<50> 5 (10%)
{Nervous syste	em)					
brain	glioma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
{Special sense	e organs/appendage)					
Zymbal gl	adenoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 4 (8%)
{Musculoskelet	tal system)					
bone	osteoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
	osteosarcoma		1 (2%)	1 (2%)	1 (2%)	0 (0%)
cartilage	chondrosarcoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
vertebra	chordome:malignant		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
{Body cavities	s)					
peritoneum	mesothelioma		<50> 2 (4%)	<50> 0 (0%)	<50> 2 (4%)	<50> 3 (6%)

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

PAGE: 5

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : MALE

Organ	Findings	Group Name No. of animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50	
{Body cavitie			<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	
	paraganglioma:benign		0 (0%)	0 (0,5)	0 (0,6)	1 (40)	
<a>> b (c)	a: Number of animals examined at the site b: Number of animals with neoplasm c: b	/a * 100			•		
(HPT085)							BAIS3

APPENDIX M 2

HISTOLOGICAL FINDINGS: NEOPLASTIC LESIONS: SUMMARY

RAT: FEMALE: (2-YEAR STUDY)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

)rgan	Findings	Group Name No. of animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
{Integumentary	r system/appandage}					
skin/app	squamous cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 2 (4%)
subcutis	lipoma		<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)
	xanthoma		0 (0%)	0 (0%)	1 (2%)	0 (0%)
	malignant fibrous histiocytoma		0 (0%)	0 (0%)	0 (0%)	1 (2%)
Respiratory	system)					
lung	bronchiolar-alveolar adenoma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
Hematopoieti	c system)					
pleen	mononuclear cell leukemia		<50> 5 (10%)	<50> 9 (18%)	<50> 3 (6%)	<50> 4 (8%)
Digestive sy	stem}					
ongue	squamous cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
tomach	squamous cell papilloma		<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
ancreas	islet cell adenoma		<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
{Urinary syst	em)					
ırin bladd	transitional cell papilloma		<49> 1 (2%)	<49> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)

b (c) b: Number of animals with neoplasm c: b/a * 100

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : FEMALE

(HPT085)

PAGE: 7

800 ppm 2000 ppm Group Name Control 320 ppm 50 No. of animals on Study 50 50 50 Findings_ {Urinary system} <50> <49> <49> <50> urin bladd 0 (0%) 0 (0%) 0 (0%) 1 (2%) transitional cell carcinoma {Endocrine system} <50> <50> <50> <50> pituitary 12 (24%) 11 (22%) 12 (24%) 16 (32%) adenoma 1 (2%) 1 (2%) 0 (0%) 0 (0%) adenocarcinoma <49> ⟨50⟩ <49> <50> thyroid 3 (6%) 0 (0%) 5 (10%) 2 (4%) C-cell adenoma 0 (0%) 2 (4%) 0 (0%) 0 (0%) follicular adenoma 1 (2%) 1 (2%) 0 (0%) 0 (0%) follicular adenocarcinoma <50> <50> <50> <50> adrenal 3 (6%) 2 (4%) 0 (0%) 0 (0%) pheochromocytoma 0 (0%) 0 (0%) 1 (2%) 0 (0%) cortical adenoma 1 (2%) 0 (0%) 1 (2%) 1 (2%) pheochromocytoma:malignant {Reproductive system} <50> <50> ⟨50⟩ <49> ovary 0 (0%) 0 (0%) 1 (2%) 0 (0%) granular cell tumor 0 (0%) 0 (0%) 0 (0%) 1 (2%) adenocarcinoma a: Number of animals examined at the site < a > b (c) b: Number of animals with neoplasm c:b/a*100

BAIS3

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ALL ANIMALS (0-105W)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

rgan	Findings No. of a	ne Control nimals on Study 50	320 pym 50	800 ppm 50	2000 ppm 50
Reproductive s	system)				
vary	sarcoma:NOS	<50> 1 (2%)	<49> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
terus	leiomyoma	<49> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
	papillary adenoma	0 (0%)	0 (0%)	0 (0%)	1 (2%)
	endometrial stromal polyp	6 (12%)	7 (14%)	9 (18%)	11 (22%)
	adenocarcinoma	1 (2%)	2 (4%)	2 (4%)	3 (6%)
	schwannoma:malignant	0 (0%)	0 (0%)	1 (2%)	1 (2%)
	histiocytic sarcoma	0 (0%)	0 (0%)	0 (0%)	1 (2%)
	endometrial stromal sarcoma	1 (2%)	0 (0%)	0 (0%)	0 (0%)
agina	squamous cell papilloma	<49> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
anmary gl	fibroadenoma	<50> 10 (20%)	<50> 5 (10%)	<50> 2 (4%)	<50> 5 (10%)
	adenocarcinoma	0 (0%)	0 (0%)	0 (0%)	4 (8%)
orep/cli gl	adenoma	<50> 2 (4%)	<50> 2 (4%)	<50> 3 (6%)	<50> 4 (8%)
Nervous syste	on)				
orain	glioma	<50> 2 (4%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)

HISTOLOGICAL FINDINGS : NEOPLASTIC LESIONS (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (0-105W)

REPORT TYPE : A1 SEX : FEMALE

PAGE: 9

Organ		up Name Control of animals on Study 50	320 ppm 50	800 ppm 50	2000 ppm 50
{Special sense	e organs/appendage)				
Zymbal gl	squamous cell carcinoma	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
	adenocarcinoma	0 (0%)	0 (0%)	1 (2%)	0 (0%)
{Musculoskele	tal system				
muscle	hemangioma	<50> 1 (2%)	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)
oone	osteosarcoma	<50> 0 (0%)	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)
{Body cavities	s}				
retroperit	paraganglioma:malignant	<50> 0 (0%)	<50> 0 (0%)	<50> 1 (2%)	<50> 0 (0%)
<a>>	a: Number of animals examined at the site b: Number of animals with neoplasm c: b/a * 100				
(HDTOOE)	-				

(HPT085)

BAIS3

APPENDIX N 1

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

RAT: MALE

(2-YEAR STUDY)

ANIMAL : RAT F344/DuCrj

STUDY No. : 0328 SEX : MALE

800 ppm 2000 ppm 320 ppm Group Name Control SITE : skin/appendage TUMOR : squamous cell papilloma Tumor rate 4/50(8.0) 3/50(6.0) Overall rates (a) 1/49(2.0) 2/50(4.0) 7.32 10.26 2.50 4, 55 Adjusted rates(b) 4/39 (10.3) 3/41(7.3) 2/44(4.5) Terminal rates(c) 1/40(2.5) Statistical analysis Peto test P = ----Standard method(d) Prevalence method(d) P = 0.0751Combined analysis(d) P = ----Cochran-Armitage test(e) P = 0.1715P = 0.3163P = 0.1874P = 0.5077Fisher Exact test(e) SITE : skin/appendage TUMOR : keratoacanthoma Tumor rate 2/50(4.0) 3/50(6.0) 0/49(0.0) 3/50(6.0) Overall rates(a) 6.98 5.13 6.82 Adjusted rates(b) 0.0 2/39(5.1) 2/41(4.9) 0/40(0.0) 3/44(6.8) Terminal rates(c) Statistical analysis Peto test P = -----Standard method(d) Prevalence method(d) P = 0.2949Combined analysis(d) P = ----Cochran-Armitage test(e) P = 0.6050P = 0.2525P = 0.1250Fisher Exact test(e) P = 0.1250SITE : skin/appendage TUMOR : squamous cell papilloma, keratoacanthoma, squamous cell carcinoma Tumor rate 7/50(14.0) 6/50(12.0) 5/50(10.0) Overall rates(a) 1/49(2.0) 17.95 2.50 11.36 13, 95 Adjusted rates(b) 5/41(12.2) 7/39 (17.9) 5/44(11.4) Terminal rates(c) 1/40(2.5) Statistical analysis Peto test P = ----Standard method(d) P = 0.0422*Prevalence method(d) Combined analysis(d) Cochran-Armitage test(e) P = 0.0804P = 0.0590P = 0.0317*P = 0.1068Fisher Exact test(e)

(HPT360A)

BAIS3

PAGE :

1

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj SEX : MALE

(HPT360A)

EA • MALE				
Group Name	Control	320 ppm	800 ppm	2000 ppm
	SITE : subcutis			
	TUMOR : fibroma			
umor rate				./=-/>
Overall rates(a)	2/50(4.0)	6/50(12.0)	2/50(4.0)	4/50(8.0) 8.51
Adjusted rates(b)	5.00	13. 33 5/44(11. 4)	4. 65 1/41 (2. 4)	3/39(7.7)
Terminal rates(c) tatistical analysis Peto test	2/40(5.0)	5/44(11.4)	1/41(2.4/	0,00(1.17
Standard method(d)	P =			
Prevalence method(d)	P = 0.4339			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.8268		T	D 0000
Fisher Exact test(e)		P = 0.1343	P = 0.6913	P = 0.3389
	SITE : lung			
	TUMOR : bronchiolar-alveola	adenoma		
umor rate	4/50/ 0.0)	1/50(2.0)	1/50(2.0)	1/50(2.0)
Overall rates(a) Adjusted rates(b)	4/50(8.0) 10.00	2. 27	2. 44	2. 56
Terminal rates(c)	4/40(10.0)	1/44(2.3)	1/41(2.4)	1/39(2.6)
tatistical analysis	1/10/10.0/	1/11(2.0/	2/ 22 \ 2/	-
Peto test Standard method(d)	P =			
Prevalence method(d)	P = 0.8727			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0, 2360			
Fisher Exact test(e)		P = 0.1811	P = 0.1811	P = 0.1811
	OTOD . I			
	SITE : lung TUMOR : bronchiolar-alveola	r adenoma, bronchiolar-alveolar carcinoma		
Cumor rate	4/50/ 9.0)	1/50(2.0)	1/50(2.0)	2/50(4.0)
Overall rates(a) Adjusted rates(b)	4/50(8.0) 10.00	2. 27	2.44	2, 56
Terminal rates(c)	4/40(10.0)	1/44(2.3)	1/41(2.4)	1/39 (2. 6)
tatistical analysis Peto test	4/40(10.0)	1/11(0.0)	A) 41 (5.1)	2, 44 \ 2. 4
Standard method(d)	P = 0.1237			
Prevalence method(d)	P = 0.8727			
Combined analysis(d)	P = 0.6673			
Cochran-Armitage test(e)	P = 0.5948			D 0.000
Fisher Exact test(e)		P = 0.1811	P = 0.1811	P = 0.3389

BAIS3

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj SEX : MALE

(HPT360A)

Group Name	Control	320 ppm	800 ppm	2000 ppm
	SITE : spleen TUMOR : mononuclear cell le	ukemia		
umor rate	TORION . MONONGOTOGI GOTI IC	unomas		
Overall rates(a)	5/50(10.0)	8/50 (16.0)	5/50(10.0)	1/50(2.0)
Adjusted rates(b)	7. 50	13.64	4. 88	0.0
Terminal rates(c)	3/40(7.5)	6/44(13.6)	2/41(4.9)	0/39(0.0)
Peto test Standard method(d) Prevalence method(d)	P = 0.7062 P = 0.9857			
Combined analysis(d)	P = 0.9767			
Cochran-Armitage test(e) Fisher Exact test(e)	P = 0.0469*	P = 0.2768	P = 0.6297	P = 0.1022
Tumor rate	SITE : liver TUMOR : hepatocellular ade	iona		
Overall rates(a)	0/50(0.0)	1/50(2.0)	0/50(0.0)	6/50(12.0)
Adjusted rates(b)	0.0	2. 27	0.0	13. 33
Terminal rates(c)	0/40(0.0)	1/44(2.3)	0/41(0.0)	4/39(10.3)
Statistical analysis Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.0004**			
Combined analysis(d)	P = P = 0.0005**			
Cochran-Armitage test(e) Fisher Exact test(e)	r = 0,0005m	P = 0.5000	P = N. C.	P = 0,0133*
Tumor rate	SITE : liver TUMOR : hepatocellular ade	noma, hepatocellular carcinoma		
Overall rates (a)	0/50(0.0)	1/50(2.0)	1/50(2.0)	8/50(16.0)
Adjusted rates(b)	0. 0	2. 27	2. 44	17. 78
Terminal rates(c)	0/40(0.0)	1/44(2.3)	1/41(2.4)	6/39 (15.4)
Statistical analysis Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.0001**			
Combined enalysis(d)	P =			
Cochran-Armitage test(e)	P = 0.0001**	P = 0.5000	P = 0.5000	P = 0.0029**
Fisher Exact test(e)		£ - 0.0000	1 0.000	* ***

BAIS3

STUDY No. : 0328
ANIMAL : RAT F344/DuCrj
SEX : MALE

Group Name	Control	320 ppm	800 ppm	2000 ppm	
	SITE : pancreas				
umor rate	TUMOR : islet cell adenoma				
Overall rates(a)	2/50(4.0)	7/50(14.0)	0/50(0.0)	2/50(4.0)	
Adjusted rates(b)	5. 00	13.64	0.0	5. 13	
Terminal rates(c)	2/40(5.0)	6/44(13.6)	0/41(0.0)	2/39 (5.1)	
tatistical analysis					
Peto test					
Standard method(d)	P = 0.5630				
Prevalence method(d) Combined analysis(d)	P = 0.7600 P = 0.8082				
Cochran-Armitage test(e)	P = 0.3394				
Fisher Exact test(e)	. 0.0001	P = 0.0798	P = 0.2475	P = 0.6913	
	SITE : kidney				
	TUMOR : renal cell adenoma, renal	cell carcinoma			
umor rate	0/50(0.0)	1/50(2.0)	0/50(0.0)	3/50(6.0)	
Overall rates(a) Adjusted rates(b)	0,00	2.27	0. 0	5. 13	
Terminal rates(c)	0/40(0.0)	1/44(2.3)	0/41(0.0)	2/39(5.1)	
Statistical analysis	0, 20 (0.07)				
Peto test					
Standard method(d)	P = 0.1225		•		
Prevalence method(d)	P = 0.0742				
Combined analysis(d)	P = 0.0220*				
Cochran-Armitage test(e)	P = 0,0334*	P = 0.5000	P = N. C.	P = 0.1212	
Fisher Exact test(e)	<u> </u>	1 - 0,0000			
	SITE : pituitary gland				
	TUMOR : adenoma				
Tumor rate		(10/50/ 0/ 0)	9/50(18.0)	
Overall rates(a)	19/50 (38. 0)	16/50 (32. 0)	12/50(24.0) 19.51	19, 05	
Adjusted rates(b)	40.00	34.09 15/44(34.1)	8/41(19.5)	7/39(17.9)	
Terminal rates(c)	16/40(40.0)	10/44(34, 1/	0/ 11 (10: 0/	.,	
Statistical analysis Peto test					
Standard method(d)	P = 0.9067				
Prevalence method(d)	P = 0.9740				
Combined analysis(d)	P = 0.9903				
Cochran-Armitage test(e)	P = 0.0231*		D 0 0071	P = 0.0220*	
Fisher Exact test(e)		P = 0.3377	P = 0.0971	r - 0.0220*	

(HPT360A)

STUDY No. : 0328 ANIMAL : RAT F344/DuCrj SEX : MALE

A MALE				
Group Name	Control	320 ppm	800 ppm	2000 ppm
	SITE : pituitary gland TUMOR : adenoma, adenocarcinoma	,		
umor rate			40 (50 (0 4 0)	9/50(18.0)
Overall rates(a)	19/50(38,0)	16/50 (32. 0)	12/50(24.0)	19.05
Adjusted rates(b)	40.00	34.09	19. 51 8/41 (19. 5)	7/39(17.9)
Terminal rates(c)	16/40 (40. 0)	15/44(34.1)	0/41(15.5)	1,00 \ 21.07
Peto test Standard method(d)	P = 0.9067			
Prevalence method(d)	P = 0.9740			
Combined analysis(d)	P = 0.9903			
Cochran-Armitage test(e)	P = 0.0231*			
Fisher Exact test(e)		P = 0.3377	P = 0.0971	P = 0.0220*
	SITE : thyroid TUMOR : C-cell adenoma			
Tumor rate			0/50/ 10 0	6/50(12.0)
Overall rates(a)	6/50(12.0)	10/50(20.0)	6/50(12.0)	12. 24
Adjusted rates(b)	14. 63	22. 73	14.63 6/41(14.6)	4/39(10.3)
Terminal rates(c)	5/40(12.5)	10/44(22.7)	0/41(14.0/	1,00 (13.0)
Statistical analysis				
Peto test				
Standard method(d)	P = P = 0.7188			
Prevalence method(d) Combined analysis(d)	P = 0.7100 P =			
Cochran-Armitage test(e)	P = 0.6216			
Fisher Exact test(e)	1 0.0010	P = 0.2070	P = 0.6202	P = 0.6202
	SITE : thyroid TUMOR : follicular adenoma			
Tumor rate	0/50(0.0)	1/50(2.0)	3/50(6.0)	1/50(2.0)
Overall rates(a) Adjusted rates(b)	0.0	2.13	6. 25	2. 27
Terminal rates(c)	0/40(0.0)	0/44(0.0)	2/41(4.9)	0/39(0.0)
Statistical analysis	V, 20 \ V. V,			
Peto test				
Standard method(d)	P =			
Prevalence method(d)	P = 0.3114			
Combined analysis(d)	P =			
Cochran-Armitage test(e)	P = 0.6250		P = 0.1212	P = 0.5000
		P = 0.5000		

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj SEX : MALE

(HPT360A)

Group Name	Control	320 ppm	800 ppm	2000 ppm	
	SITE : thyroid				
	TUMOR : C-cell adenoma, C-cell o	arcinoma			
umor rate	G (=0 (14 0)	10/50(20.0)	7/50(14.0)	6/50(12.0)	
Overall rates(a)	7/50(14.0) 17.07	22.73	17. 07	12. 24	
Adjusted rates(b) Terminal rates(c)	6/40(15.0)	10/44(22.7)	7/41(17.1)	4/39(10.3)	
tatistical analysis	0, 40 (10. 0)	#			
Peto test					
Standard method(d)	P =				
Prevalence method(d)	P = 0.7800				
Combined analysis(d)	P =				
Cochran-Armitage test(e)	P = 0.4980	D = 0.9077	P = 0.6129	P = 0.5000	
Fisher Exact test(e)		P = 0.2977	1 - 0.0180		
	SITE : thyroid				
	TUMOR : follicular adenoma, fol	licular adenocarcinoma			
Tumor rate		0/00/ 4.0\	3/50(6.0)	1/50(2.0)	
Overall rates(a)	0/50(0.0)	2/50(4.0) 4.26	6. 25	2. 27	
Adjusted rates(b)	0.0 0/40(0.0)	1/44(2.3)	2/41(4.9)	0/39(0.0)	
Terminal rates(c) Statistical analysis	0/40(0.0)	1, 11(0.0)			
Peto test					
Standard method(d)	P =				
Prevalence method(d)	P = 0.4142				
Combined analysis(d)	P =				
Cochran-Armitage test(e)	P = 0.8443	D 0.005	P = 0, 1212	P = 0.5000	
Fisher Exact test(e)		P = 0. 2475	F = 0,1212	. 0,000	•
	SITE : adrenal gland				
	TUMOR : pheochromocytoma				
Tumor rate	· ·		- (50 (50 0)	3/50/ 6.0)	
Overall rates(a)	4/49(8.2)	6/50 (12. 0)	6/50(12.0)	3/50(6.0) 7.69	
Adjusted rates(b)	10.00	13.64	13. 04 5/41 (12. 2)	3/39(7.7)	
Terminal rates(c)	4/40 (10.0)	6/44(13.6)	0/41(12.2/	0,00(11.7	
Statistical analysis					
Peto test Standard method(d)	P =				
Prevalence method(d)	P = 0.7437				
Combined analysis(d)	P =				
	-				
Cochran-Armitage test(e)	P = 0.4899		P = 0.3833	P = 0.4886	

BAIS3

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj

SEX : MALE

2000 ppm 800 ppm 320 ppm Control Group Name SITE : adrenal gland TUMOR : pheochromocytoma, pheochromocytoma:malignant Tumor rate 3/50(6.0) 6/50(12.0) 5/49(10.2) 6/50(12.0) Overall rates (a) 7.69 13.04 13.64 10.00 Adjusted rates(b) 3/39(7.7) 6/44(13.6) 5/41(12.2) Terminal rates(c) 4/40(10.0) Statistical analysis Peto test Standard method(d) P = 1.0000 ? P = 0.7542Prevalence method(d) P = 0.8224Combined analysis(d) Cochran-Armitage test(e) P = 0.3585P = 0.3461P = 0.5144Fisher Exact test(e) P = 0.5144SITE : testis TUMOR : interstitial cell tumor Tumor rate 40/50(80.0) 41/50(82.0) 41/50(82.0) Overall rates(a) 34/50 (68.0) 89.74 89.13 77.50 86.96 Adjusted rates(b) 35/39(89.7) 38/44(86.4) 36/41(87.8) 31/40(77.5) Terminal rates(c) Statistical analysis Peto test Standard method(d) P = 0.1875Prevalence method(d) P = ----Combined analysis(d) P = 0.3408Cochran-Armitage test(e) P = 0.1271P = 0.0826P = 0.0826Fisher Exact test(e) SITE : testis TUMOR : rete testis adenoma Tumor rate 1/50(2.0) 5/50(10.0) 1/50(2.0) 4/50(8.0) Overall rates(a) 12.20 2, 56 2.27 10.00 Adjusted rates(b) 1/39(2.6) 1/44(2.3) 5/41(12.2) Terminal rates(c) 4/40(10.0) Statistical analysis Peto test P = ----Standard method(d) P = 0.7978Prevalence method(d) Combined analysis(d) P = ----P = 0.3562Cochran-Armitage test(e) P = 0.1811P = 0.5000P = 0.1811Fisher Exact test(e)

(HPT360A)

PAGE:

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STUDY No. : 0328 ANIMAL : RAT F344/DuCrj

Combined analysis(d)
Cochran-Armitage test(e)

Fisher Exact test(e)

P = 0.0006**?

P = 0.0012***

SEX : MALE

2000 ppm 800 ppm 320 ppm Group Name Control SITE : preputial/clitoral gland TUMOR : adenoma Tumor rate 5/50(10.0) 2/50(4.0) 3/50(6.0) 1/50(2.0) Overall rates(a) 10.87 4.88 2.27 7.32 Adjusted rates(b) 4/39(10.3) 1/44(2.3) 2/41(4.9) Terminal rates(c) 2/40(5.0) Statistical analysis Peto test P = -----Standard method(d) P = 0.0977Prevalence method(d) Combined analysis(d) P = ----P = 0.1727Cochran-Armitage test(e) P = 0.3575P = 0.5000P = 0.3087Fisher Exact test(e) SITE : Zymbal gland TUMOR : adenoma Tumor rate 4/50(8.0) 0/50(0.0) 0/50(0.0) 0/50(0.0) Overall rates(a) 7.69 0.0 0.0 0.0 Adjusted rates(b) 3/39(7.7) 0/44(0.0) 0/41(0.0) 0/40(0.0) Terminal rates(c) Statistical analysis Peto test Standard method(d) P = 0.1225P = 0.0027**?Prevalence method(d)

PAGE :

P = 0.0587

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(HPT360A)

P = N.C.

P = N, C.

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

ANIMAL : RAT F344/DuCrj

SEX : MALE

PAGE:

Group Name	Control	320 ppm	800 ppm	2000 ppm
	SITE : peritoneum			
	TUMOR : mesothelioma			
Tumor rate				
Overall rates(a)	2/50(4.0)	0/50(0.0)	2/50(4.0)	3/50(6.0)
Adjusted rates(b)	2. 50	0.0	2. 44	5. 13
Terminal rates(c)	1/40(2.5)	0/44(0.0)	1/41(2.4)	2/39 (5. 1)
Statistical analysis				
Peto test				
Standard method(d)	P = 0.3476			
Prevalence method(d)	P = 0.1305			
Combined analysis(d)	P = 0.1389			
Cochran-Armitage test(e)	P = 0.2785			
Fisher Exact test(e)		P = 0.2475	P = 0.6913	P = 0.5000
(WIND GO L)				

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- (a): Number of tumor-bearing animals/number of animals examined at the site.
- (b): Kaplan-Meire estimated tumor incidence at the end of the study after adjusting for intercurrent mortality.
- (c): Observed tumor incidence at terminal kill.
- (d): Beneath the control incidence are the P-values associated with the trend test.

Standard method : Death analysis

Prevalence method: Incidental tumor test

Combined analysis: Death analysis + Incidental tumor test

- (e): The Cochran-Armitage and Fisher exact test compare directly the overall incidence rates.
- ?: The conditional probabilities of the largest and smallest possible out comes can not estimated or this P-value is beyond the estimated P-value.
- ----: There is no data which should be statistical analysis.

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

N.C.: Statistical value cannot be calculated and was not significant.

APPENDIX N 2

NEOPLASTIC LESIONS-INCIDENCE AND STATISTICAL ANALYSIS

RAT: FEMALE

(2-YEAR STUDY)

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj SEX : FEMALE

Group Name	Control	320 ppm	800 ppm	2000 ppm	
	SITE : spleen TUMOR : mononuclear cell leukemia				
fumor rate	IOWOK : mononactear ceff feakeurs				
Overall rates(a)	5/50(10.0)	9/50(18.0)	3/50(6.0)	4/50(8.0)	
Adjusted rates(b)	5. 26	5. 71	2, 56	0.0	
Terminal rates(c)	2/38(5.3)	2/35(5.7)	1/39(2.6)	0/34(0.0)	
Statistical analysis					
Peto test					
Standard method(d)	P = 0.5463				
Prevalence method(d)	P = 0.9332				
Combined analysis(d)	P = 0.7868				
Cochran-Armitage test(e) Fisher Exact test(e)	P = 0.3466	P = 0.1940	P = 0.3575	P = 0.5000	
1 I Shel Dadet test(e)		1 0,1010			
	SITE : pituitary gland				
	TUMOR : adenoma				
Tumor rate			•		
Overall rates(a)	16/50(32.0)	11/50(22.0)	12/50(24.0)	12/50(24.0)	
Adjusted rates(b)	31.58	23. 68	25. 64	26. 47	
Terminal rates(c)	12/38(31.6)	7/35(20.0)	10/39 (25.6)	9/34(26.5)	
Statistical analysis		*			
Peto test Standard method(d)	P = 0.7183				
Prevalence method(d)	P = 0.5500	*			
Combined analysis(d)	P = 0.6551				
Cochran-Armitage test(e)	P = 0,5700				
Fisher Exact test(e)		P = 0.1839	P = 0.2522	P = 0.2522	
	SITE : pituitary gland TUMOR : adenoma, adenocarcinoma				
Tumor rate	TUMOR : adenoma, adenocarcinoma				
Overall rates(a)	17/50(34.0)	12/50(24.0)	12/50(24.0)	12/50(24.0)	
Adjusted rates(b)	34, 21	23.68	25. 64	26. 47	
Terminal rates(c)	13/38(34.2)	7/35(20.0)	10/39(25.6)	9/34(26.5)	
Statistical analysis	, -,				
Peto test					
Standard method(d)	P = 0.7696				
Prevalence method(d)	P = 0.6247				
Combined analysis(d)	P = 0.7424				
Cochran-Armitage test(e)	P = 0.4108		5	D 0 1001	
Fisher Exact test(e)		P = 0.1891	P = 0.1891	P = 0.1891	

ANIMAL : RAT F344/DuCrj

STUDY No. : 0328 SEX : FEMALE

800 ppm 2000 ppm Control 320 ppm Group Name SITE : thyroid TUMOR : C-cell adenoma Tumor rate 3/49(6.1) 2/50(4.0) Overall rates(a) 0/49(0.0) 5/50(10.0) 5.13 8.82 0.0 14.29 Adjusted rates(b) 3/34(8.8) 2/39(5,1) 0/37(0.0) 5/35 (14.3) Terminal rates(c) Statistical analysis Peto test P = -----Standard method(d) Prevalence method(d) P = 0.2411Combined analysis(d) P = -----P = 0.5418Cochran-Armitage test(e) P = 0.1211P = 0.2525P = 0.0296*Fisher Exact test(e) SITE : thyroid TUMOR : C-cell adenoma, C-cell carcinoma Tumor rate 3/49 (6.1) 2/50(4.0) 0/49(0.0) 5/50(10.0) Overall rates(a) 8,82 14.29 5. 13 Adjusted rates(b) 0.0 3/34(8.8) 2/39(5.1) Terminal rates(c) 0/37(0.0) 5/35(14.3) Statistical analysis Peto test Standard method(d) P = ----P = 0.2411Prevalence method(d) Combined analysis(d) P = ----Cochran-Armitage test(e) P = 0.5418P = 0.1211P = 0.0296*P = 0.2525Fisher Exact test(e) SITE : thyroid TUMOR : follicular adenoma, follicular adenocarcinoma Tumor rate 0/49(0.0) 0/50(0.0) 3/49(6.1) 1/50(2.0) Overall rates(a) 2.86 0.0 0.0 Adjusted rates(b) 8.11 0/34(0.0) 3/37(8.1) 1/35(2.9) 0/39(0.0) Terminal rates(c) Statistical analysis Peto test Standard method(d) P = ----Prevalence method(d) P = 0.9865P = ----Combined analysis(d) P = 0.0624Cochran-Armitage test(e) P = 0.1175P = 0.1211P = 0.3010Fisher Exact test(e)

(HPT360A)

BAIS3

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj

IMAL : RAT F344/DuCrj X : FEMALE					PAGE: 1
Group Name	Control	320 ppm	800 ppm	2000 ppm	
	SITE : adrenal gland				
	TUMOR : pheochromocytoma				
umor rate		- ((0 (70 (0 0)	0/50/ 0.0)	
Overall rates(a)	3/50 (6.0)	2/50(4.0)	0/50(0.0)	0/50(0.0)	
Adjusted rates(b)	6. 12	4. 44	0.0	0.0 0/34(0.0)	
Terminal rates(c)	2/38(5.3)	1/35(2.9)	0/39(0.0)	0/34(0.0)	
tatistical analysis			•		
Peto test	_				
Standard method(d)	P =				
Prevalence method(d)	P = 0.9881				
Combined analysis(d)	P =				
Cochran-Armitage test(e)	P = 0.0520	D 0 5000	P = 0.1212	P = 0.1212	
Fisher Exact test(e)		P = 0.5000	P - 0. 1212	1 - 0. 1212	
Overall rates(a) Adjusted rates(b) Terminal rates(c) itatistical analysis Peto test Standard method(d) Prevalence method(d) Combined analysis(d) Cochran-Armitage test(e) Fisher Exact test(e)	4/50(8.0) 8.16 2/38(5.3) P = 0.5498 P = 0.9894 P = 0.9914 P = 0.0334*	3/50 (6.0) 4.55 1/35 (2.9) P = 0.5000	1/50 (2.0) 2.56 1/39 (2.6) P = 0.1811	0/50(0.0) 0.0 0/34(0.0) P = 0.0587	
	SITE : uterus TUMOR : endometrial stromal pol;	ур			
Cumor rate					
Overall rates(a)	6/49(12.2)	7/50(14.0)	9/50(18.0)	11/50(22.0)	
Adjusted rates(b)	13, 95	13. 89	20. 51	29. 73	
Terminal rates(c)	4/37(10.8)	4/35(11.4)	8/39 (20.5)	9/34(26.5)	
tatistical analysis					
Peto test					
Standard method(d)	P = 0.5944				
Prevalence method(d)	P = 0.0446*				
Combined analysis(d)	P = 0.0626				
	D = 0.1600				
Cochran-Armitage test(e) Fisher Exact test(e)	P = 0.1622	P = 0.5158	P = 0.3030	P = 0.1539	

BAIS3

(HPT360A)

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj

SEX : FEMALE

2000 ppm 320 ppm 800 ppm Control Group Name SITE : uterus TUMOR : adenocarcinoma Tumor rate 3/50(6.0) 2/50(4.0) 2/50(4.0) 1/49(2.0) Overall rates(a) 5,88 2.56 0.0 2.70 Adjusted rates(b) 2/34(5.9) 0/35(0.0) 1/39(2.6) 1/37(2.7) Terminal rates(c) Statistical analysis Peto test P = 0.3753Standard method(d) Prevalence method(d) P = 0.1291Combined analysis(d) P = 0.1576P = 0.3497Cochran-Armitage test(e) P = 0.3163P = 0.5077P = 0.5077Fisher Exact test(e) SITE : uterus TUMOR : papillary adenoma, adenocarcinoma Tumor rate 4/50(8.0) 2/50(4.0) 2/50(4.0) 1/49(2.0) Overall rates(a) 8.82 2.56 2.70 0.0 Adjusted rates(b) 3/34(8.8) 1/39(2.6) 0/35(0.0) 1/37(2.7) Terminal rates(c) Statistical analysis Peto test Standard method(d) P = 0.3753P = 0.0440*Prevalence method(d) Combined analysis(d) P = 0.0716P = 0.1527Cochran-Armitage test(e) P = 0.1874P = 0.5077P = 0.5077Fisher Exact test(e) SITE : mammary gland TUMOR : fibroadenoma Tumor rate 5/50(10.0) 2/50(4.0) 5/50(10.0) 10/50(20.0) Overall rates(a) 11.76 4.76 19.05 13.89 Adjusted rates(b) 4/34(11.8) 1/39(2.6) 4/35(11.4) 7/38(18.4) Terminal rates(c) Statistical analysis Peto test P = 0.3133Standard method(d) P = 0.8901Prevalence method(d) Combined analysis(d) P = 0.8433P = 0.2388Cochran-Armitage test(e) P = 0.1312P = 0.0139*P = 0.1312Fisher Exact test(e)

(HPT360A)

STUDY No. : 0328

ANIMAL : RAT F344/DuCrj

: FEMALE SEX

2000 ppm 320 ppm 800 ppm Control Group Name SITE : mammary gland TUMOR : adenocarcinoma Tumor rate 4/50(8,0) 0/50(0.0) Overall rates(a) 0/50(0.0) 0/50(0.0) 0.0 2.94 0.0 Adjusted rates(b) 0.0 1/34(2.9) 0/39(0.0) 0/38(0.0) 0/35(0.0) Terminal rates(c) Statistical analysis Peto test P = 0.0033**?Standard method(d) Prevalence method(d) P = 0.1079P = 0.0007**?Combined analysis(d) Cochran-Armitage test(e) P = 0.0012**P = 0.0587P = N.C.P = N.C.Fisher Exact test(e) SITE : preputial/clitoral gland TUMOR : adenoma Tumor rate 3/50(6.0) 4/50(8.0) 2/50(4.0) 2/50(4.0) Overall rates(a) 6.67 5.71 5, 13 Adjusted rates(b) 2.63 2/34(5.9) 2/39(5.1) 1/38(2.6) 2/35(5.7) Terminal rates(c) Statistical analysis Peto test Standard method(d) P = 0.3372P = 0.1660Prevalence method(d) Combined analysis(d) P = 0.1538Cochran-Armitage test(e) P = 0.3152P = 0.3389P = 0.6913P = 0.5000Fisher Exact test(e) (HPT360A)

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

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

(c): Observed tumor incidence at terminal kill.

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

Standard method : Death analysis

Prevalence method: Incidental tumor test

Combined analysis : Death analysis + Incidental tumor test

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

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

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

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

N.C.: Statistical value cannot be calculated and was not significant.

BAIS3

APPENDIX O 1

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY

RAT: MALE: ALL ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

PAGE: 1

ALL ANIMALS (0-105W)

: RAT F344/DuCrj ANIMAL REPORT TYPE : A1

SEX

: MALE

2000 ppm 320 ppm 800 ppm Group Name Control 50 50 50 No. of Animals on Study Organ_ Findings_ {Respiratory system} <50> <50> <50> <50> nasal cavit 0 leukemic cell infiltration <50> <50> <50> <50> lung 5 0 leukemic cell infiltration 5 1 metastasis:bone tumor 0 metastasis:kidney tumor 0 0 1 metastasis:cartilage tumor {Hematopoietic system} <50> <50> <50> <50≻ bone marrow 1 2 6 leukemic cell infiltration <50> <50> <50> <50> lymph node 0 2 1 leukemic cell infiltration 1 0 1 metastasis:kidney tumor {Circulatory system} <50> <50> <50> <50> heart 0 leukemic cell infiltration {Digestive system} <50> <50> <50> <50> liver 1 leukemic cell infiltration {Urinary system} <50> ⟨50⟩ <50> <50> kidney 2 1 0 leukemic cell infiltration

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

b: Number of animals with lesion

: 0328 : RAT F344/DuCrj

ANIMAL : RAT FOR REPORT TYPE : A1 SEX : MALE

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

ALL ANIMALS (0-105W)

800 ppm 2000 ppm 320 ppm Group Name Control 50 50 50 No. of Animals on Study Organ__ Findings_ {Endocrine system} <50> <50> <50> <50> pituitary 1 2 leukemic cell infiltration 0 <50> <50> <50> <50> adrenal 3 1 leukemic cell infiltration 0 0 (Nervous system) <50> <50> <50> <50> brain 1 0 leukemic cell infiltration <50> <50> <50> <50> spinal cord 1 leukemic cell infiltration {Musculoskeletal system} <50> <50> <50> <50> muscle 0 0 0 1 leukemic cell infiltration < a > a : Number of animals examined at the site b: Number of animals with lesion

(JPT150)

BAIS3

APPENDIX O 2

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY

RAT: FEMALE: ALL ANIMALS

(2-YEAR STUDY)

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

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : FEMALE

_		Group Name No. of Animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
)rgan	Findings					
{Integumentary	system/appandage)					
skin/app			< 50>	<50>	<50>	<50>
KIN/ app	leukemic cell infiltration		0	0	1	0
{Respiratory s	ystem)					
nasal cavit			<50>	<50≻	<50≻	<50>
	leukemic cell infiltration		0	0	2	1
lung			<5 <u>0</u> >	<50>	<50>	<50>
	leukemic cell infiltration		5	9	3	3
	metastasis:uterus tumor		1	1	2	1
	metastasis:adrenal tumor		1	0	1	0
	metastasis:thyroid tumor		1	0	0	0
	metastasis:bone tumor		0	0	0	1
	metastasis:ovary tumor		0	1	0	0
	metastasis:mammary gland tumor		0	0	0	1
	metastasis:retroperitoneum tumor		0	0	1	0
	metastasis:urinary bladder tumor		0	0	1	0
{Hematopoietic	c system}					
bone marrow	leukemic cell infiltration		<50>	<50> 7	<50> 3	<50> 4
	Tenkewic cell intlituation					
lymph node	leukemic cell infiltration		<50> 0	<50> 4	<50> 3	<50> 1

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

ALL ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

PAGE: 4

BAIS3

•	D. 11	Group Name No. of Animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
)rgan	Findings					
Hematopoiet	ic system)					
ymph node	metastasis:uterus tumor		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:ovary tumor		0	1	0	0
Circulatory	system}					
neart	leukemic cell infiltration		<50> 0	<50> 0	<50> 2	<50> 1
Digestive s	ystem}					
liver	leukemic cell infiltration		<50> 5	<50> 9	<50> 3	<50> 4
	metastasis:uterus tumor		0	I	1	1
	metastasis:adrenal tumor		0	0	. 1	0
ancreas	leukemic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 0
	metastasis:ovary tumor		0	1	0	0
	metastasis:urinary bladder tumor		0	0	1	0
{Urinary sys	tem)					
kidney	leukemic cell infiltration		<50> 0	<50> 2	<50> 2	<50> 2
	metastasis:uterus tumor		0	1	1	0

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

ANIMAL : RAT F344/DuCrj

ALL ANIMALS (0-105\)

REPORT TYPE : A1

SEX : FEMALE

	Group Name No. of Animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
gs					
asis:urinary bladder tumor		<50> 0	<50> 0	< 50> 1	<50> 0
asis:uterus tumor		<50> 0	<50> 1	<50> 0	<50> 0
nic cell infiltration		<50> 0	<50> 1	<50> 0	<50> 1
nic cell infiltration		<50> 1	<50> 0	<50> 2	<50> 1
nic cell infiltration		<50> 0	<50> 1	<50> 2	<50> 1
mic cell infiltration		<50> 1	<50> 1	<50> 1	<50> 1
tasis:urinary bladder tumor		0	0	· 1	0
mic cell infiltration		<50> 1	<50> 4	<50> 2	<50> 3
tasis:pituitary tumor		1	1	0	0
mic cell infiltration		<50> 0	<50> 4	<50> 1	<50> 3
tasis:p	ituitary tumor	ituitary tumor l infiltration f animals examined at the site	1 infiltration 1 ituitary tumor 1 4 infiltration 50> 1 infiltration 0 f animals examined at the site	1 infiltration 1 4 ituitary tumor 1 1 1 <pre></pre>	1 infiltration 1 4 2 ituitary tumor 1 1 0

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : FEMALE HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

ALL ANIMALS (0-105W)

		Group Name No. of Animals on Study	Control 50	320 ppm 50	800 ppm 50	2000 ppm 50
rgan	Findings					
Special sense	organs/appendage)					
arder gl	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
Musculoskeleta	al system)					
uscle	leukemic cell infiltration		<50> 0	<50> 0	<50> 1	<50> 0
Body cavities)					
nediastinum	metastasis:urinary bladder tumor		<50> 0	<50> 0	<50> 1	<50> 0
peritoneum	metastasis:uterus tumor		<50> 0	<50> 0	<50> 1	<50> 1
	metastasis:ovary tumor		1	0	0	0
	metastasis:urinary bladder tumor		0	0	1	0
(a >	a: Number of animals examined at the s b: Number of animals with lesion	ite				

(JPT150)

BAIS3

APPENDIX O 3

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY

RAT: MALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

SACRIFICED ANIMALS (105W)

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

SEX : MALE

	(Group Name No. of Animals on Study	Control 40	320 ppm 44	800 ppm 41	2000 ppm 39
rgan	Findings					
Respiratory	system)					
ung			<40>	<44>	<41>	<39>
	leukemic cell infiltration		3	6		-
	metastasis:kidney tumor		0	1	0	0
	metastasis:cartilage tumor		1	0	0	0
{Hematopoieti	c system}					
one marrow		•	<40>	<44>	<41>	<39>
	leukemic cell infiltration		0	4		
lymph node	metastasis:kidney tumor		<40> 0	<44>	<41> 0	<39>
	metastasts.kidney tumor .		Ü	•		
Digestive sy	estem)					
liver			<40>	<44>	<41>	<39>
.1761	leukemic cell infiltration		3	6	2	0
{Urinary syst	en)					
kidney			<40> 0	<44>	<41> 0	<39>
	leukemic cell infiltration		U	1	U	, and the second
{Endocrine sy	ystem}					
adrenal			<40>	<44>	<41>	<39>
ant oligi	leukemic cell infiltration		0	0	1	0
< a >	a : Number of animals examined at the s	ite				
b	b : Number of animals with lesion					

APPENDIX O 4

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY

RAT: FEMALE: SACRIFICED ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

PAGE: 2

BAIS3

SACRIFICED ANIMALS (105W)

STUDY NO. : 0328 ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1 SEX : FEMALE

(JPT150)

2000 ppm 320 ppm 800 ppm Group Name Control 34 35 No. of Animals on Study 38 Findings_ (Respiratory system) <39> <34> <35> <38> lung 0 leukemic cell infiltration 0 metastasis:uterus tumor metastasis:adrenal tumor 0 metastasis: thyroid tumor {Hematopoietic system} <39> <34> ⟨38⟩ <35> bone marrow 0 1 1 leukemic cell infiltration <34> <38≻ <35> <39> lymph node 0 leukemic cell infiltration {Digestive system} <35> <39> <34> <38> liver 0 2 2 1 leukemic cell infiltration 1 0 metastasis:adrenal tumor {Reproductive system} ⟨39⟩ <34> ⟨38⟩ <35> uterus 0 leukemic cell infiltration {Nervous system} <34> <39> ⟨38⟩ <35> brain 0 0 1 metastasis:pituitary tumor a : Number of animals examined at the site < a > b: Number of animals with lesion b

APPENDIX O 5

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY

RAT: MALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

REPORT TYPE : AI SEX : MALE

(JPT150)

STUDY NO. : 0328

800 ppm 2000 ppm 320 ppm Group Name Control 11 No. of Animals on Study 10 Findings_ {Respiratory system} <11> < 9> <10> < 6> nasal cavit 1 leukemic cell infiltration ⟨ 9⟩ <11> < 6> <10> lung 0 3 leukemic cell infiltration 0 metastasis:bone tumor 1 0 metastasis:kidney tumor {Hematopoietic system} **<11>** < 6> < 9> <10> bone marrow 1 leukemic cell infiltration < 9> <11> < 6> <10> lymph node leukemic cell infiltration 0 1 metastasis:kidney tumor {Circulatory system} < 9> <11> < 6> <10> heart 0 leukemic cell infiltration {Digestive system} < 9> <11> <10> < 6> liver 1 leukemic cell infiltration (Urinary system) <11> < 6> < 9> <10> kidney 1 0 leukemic cell infiltration a : Number of animals examined at the site < a > b b: Number of animals with lesion

ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1
SEX : MALE

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

PAGE: 2

DEAD AND MORIBUND ANIMALS (0-105W)

Organ	1.0. 0	f Animals on Study 10	320 ppm 6	9 ppm	2000 ppm 11
	Findings				
{Endocrine syst	em)				
pituitary	leukemic cell infiltration	<10> 0	< 6>	< 9> 2	<11> 1
adrenal	leukemic cell infiltration	<10> 0	6>	< 9> 2	<11> 1
{Nervous system	n)				
brain	leukemic cell infiltration	<10> 0	< 6>	< 9> 2	<11> 1
spinal cord	leukemic cell infiltration	<10> 0	< 6> 0	< 9> 2	<11> 1
{Musculoskeleta	al system)				
muscle	leukemic cell infiltration	<10> 0	< 6> 1	< 9> 0	<11> 0
< a > b	a: Number of animals examined at the site b: Number of animals with lesion				

APPENDIX O 6

HISTOLOGICAL FINDINGS: METASTASIS OF TUMOR: SUMMARY

RAT: FEMALE: DEAD AND MORIBUND ANIMALS

(2-YEAR STUDY)

STUDY NO. : 0328 HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W) ANIMAL : RAT F344/DuCrj

REPORT TYPE : A1

PAGE: 3 SEX : FEMALE

0	Findings	Group Name No. of Animals on Study	Control 12	320 ppm 15	800 ppm 11	2000 ppm 16
)rgan	rindings					
(Integumentar	y system/appandage}					
skin/app	leukemic cell infiltration		<12>	<15> 0	<11> 1	<16>
	redreame cell intituation		· ·	·	-	
Respiratory	system)					
nasal cavit			<12>	<15>	<11>	<16>
	leukemic cell infiltration		0	0	2	1
lung	leukemic cell infiltration		<12> 3	<15>	<11> 2	<16>
				1	2	1
	metastasis:uterus tumor		0			
	metastasis:adrenal tumor		1		0	0
	metastasis:bone tumor		0	0	0	1
	metastasis:ovary tumor		0	1	0	0
	metastasis:mammary gland tumor		0	0	0	1
	metastasis:retroperitoneum tumor		0	0	1	0
	metastasis:urinary bladder tumor		0	0	1	0
{Hematopoieti	.c system)					
bone marrow			<12>	<15>	<11>	<16>
	leukemic cell infiltration		3	6	2	4
lymph node	1 . 1		<12> 0	<15> 4	<11> 2	<16>
	leukemic cell infiltration					
	metastasis:uterus tumor		0	1	0	0
< a >	a : Number of animals examined at t	he site				
b	b: Number of animals with lesion					

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

PAGE: 4

		Group Name No. of Animals on Study	Control 12	320 ppm 15	800 ppm 11	2000 ppm 16
)rgan	Findings					
(Hematopoietic	c system)					
			<12>	<15>	<11>	<16>
Lymph node	metastasis:ovary tumor		0	1	0	0
{Circulatory	system}					
leart	leukemic cell infiltration		<12>	<15> 0	<11> 2	<16>
	Teckewic cell lufilitiation		v	v	-	
{Digestive sy	stem)					
liver	leukemic cell infiltration		<12> 3	<15>	<11> 2	<16> 4
	metastasis:uterus tumor		0	1	1	1
pancreas			<12>	<15>	<11>	<16>
	leukemic cell infiltration		. 0	1	0	0
	metastasis:ovary tumor		0	1	0	0
	metastasis:urinary bladder tumor		0	0	1	0
{Urinary syst	cem)					
kidney			<12>	<15>	<11> 2	<16>
	leukemic cell infiltration		0	2	2	
	metastasis:uterus tumor		0	1	1	0
	metastasis:urinary bladder tumor		0	0	1	0
urin bladd	metastasis:uterus tumor		<12> 0	<15> 1	<11> 0	<16> 0
< a >	a: Number of animals examined at t b: Number of animals with lesion	ne site				

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

ANIMAL : RAT F344/DuCrj REPORT TYPE : A1

SEX : FEMALE

		Group Name No, of Animals on Study	Control 12	320 ppm 15	800 ppm 11	2000 ppm 16
)rgan	Findings					
{Endocrine s	ystem)					
pituitary	leukemic cell infiltration		<12> 0	<15> 1	<11> 0	<16>
adrenæl	leukemic cell infiltration		<12> 1	<15> 0	<11> 2	<16>
{Reproductiv	e system}					
ovary	leukemic cell infiltration		<12> 0	<15> 1	<11> 2	<16>
uterus	leukemic cell infiltration		<12> 0	<15> 1	1	<16> 1
	metastasis:urinary bladder tumor		0	0	1	0
{Nervous sys	tem)					
brain	leukemic cell infiltration		<12> 1	<15> 4	<11> 2	<16> 3
	metastasis:pituitary tumor		0	1	0	0
spinal cord	leukemic cell infiltration		<12> 0	<15> 4	1	<16>
{Special ser	se organs/appendage)					
Harder gl	leukemic cell infiltration		<12> 0	<15> 0	1	<16> 0
{Musculoske	letal system)					
muscle	leukemic cell infiltration		<12> 0	<15> 0	<11> 1	<16> 0
< a > b	a : Number of animals examined at t b : Number of animals with lesion	he site				

HISTOLOGICAL FINDINGS : METASTASIS OF TUMOR (SUMMARY)

DEAD AND MORIBUND ANIMALS (0-105W)

REPORT TYPE : A1

SEX : FEMALE

ANIMAL : RAT F344/DuCrj

	I	Froup Name No. of Animals on Study	Control 12	320 ppm 15	800 ppm 11	2000 ppm 16
rgan	Findings					
						·
(Body cavities)					
nediastinum			<12>	<15>	<11>	<16>
	metastasis:urinary bladder tumor		0	0	1	0
peritoneum			<12>	<15>	<11>	<16>
	metastasis:uterus tumor		0	0	1	1
	metastasis:ovary tumor		1	0	0	0
	metastasis:urinary bladder tumor		0	0	1	0
< a >	a : Number of animals examined at the si	te				
b	b : Number of animals with lesion					

APPENDIX P 1

IDENTITY AND IMPURITY OF 1,4-DICHLORO-2-NITROBENZENE
IN THE 2-YEAR FEED STUDY

IDENTITY OF 1,4-DICHLORO-2-NITROBENZENE IN THE 2-YEAR FEED STUDY

Test Substance

: 1,4-Dichloro-2-nitrobenzene (Wako Pure Chemical Industries, Ltd.)

Lot No.

: WTR1850

1. Spectral Data

Mass Spectrometry

Instrument

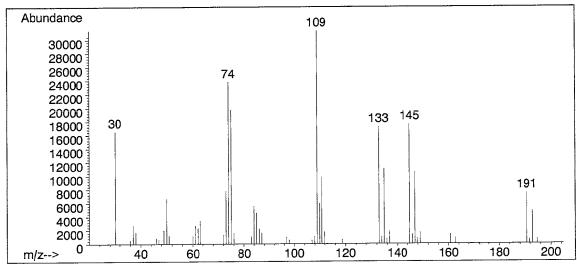
: Hewlett Packard 5989B Mass Spectrometer

Ionization

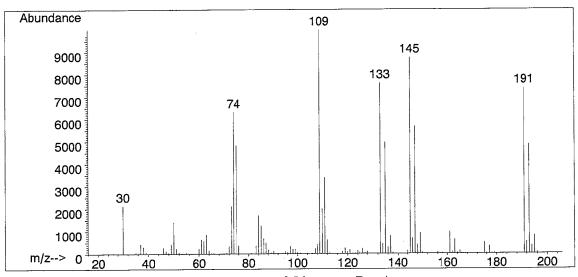
: EI (Electron Ionization)

Ionization Voltage

: 70eV



Mass Spectrum of Test Substance



Mass Spectrum of Literature Data*

Results: The mass spectrum was consistent with literature spectrum.

(*Fred W. McLafferty (1994) Wiley Registry of Mass Spectral Data, 6th edition.

John Wiley and Sons, Inc. (U.S.), Entry Number 74222)

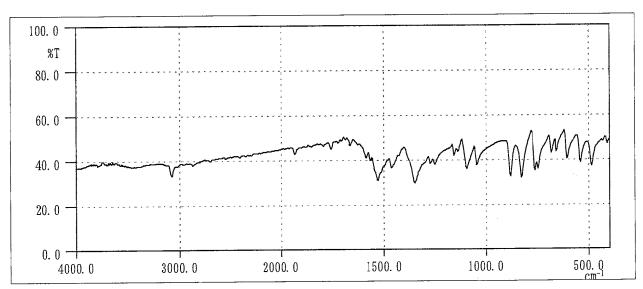
Infrared Spectrometry

)

Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr

Resolution : 2 cm⁻¹



Infrared Spectrum of Test Substance

	*
<u>Determined Values</u>	Literature Values
Wave Number (cm ⁻¹)	Wave Number (cm ⁻¹)
460~ 510	460~ 510
510~ 560	510~ 560
560∼ 620	560∼ 620
$620\sim\ 670$	620~ 670
670~ 690	670~ 690
690~ 790	690~ 790
$790\sim 850$	790~ 850
850~ 900	850~ 900
900~1060	900~1060
1060~1120	$1060 \sim 1120$
1120~1170	1120~1170
1170~1180	1170~1180
1180~1260	1180~1260
1260~1280	1260~1280
1280~1400	1280~1400
1400~1470	1400~1470
1470~1580	$1470 \sim 1580$
1580~1600	1580~1600
1650~1690	$1650 \sim 1690$
1750~1780	1750~1780
1780~1810	1780~1810
1900~1950	1900~1950
3000~3100	3000~3100
2000 2200	

Results: The infrared spectrum was consistent with literature spectrum. (*Performed by Wako Pure Chemical Industries, Ltd.)

2. Conclusions: The test substance was identified as 1,4-dichloro-2-nitrobenzene by the mass spectrum and the infrared spectrum.

APPENDIX P 2

STABILITY OF 1,4-DICHLORO-2-NITROBENZENE
IN THE 2-YEAR FEED STUDY

STABILITY OF 1,4-DICHLORO-2-NITROBENZENE IN THE 2-YEAR FEED STUDY

Test Substance : 1,4-Dichloro-2-nitrobenzene (Wako Pure Chemical Industries, Ltd.)

Lot No. : WTR1850

1. Sample : This lot was used from 1997.2.13 to 1999.2.17. Test substance was stored

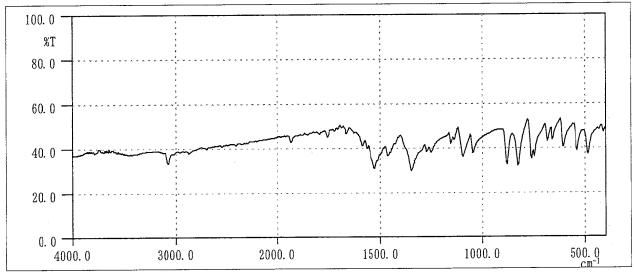
in a dark place at room temperature.

2. Infrared Spectrometry

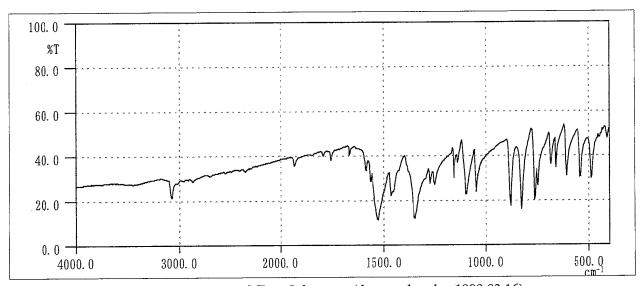
Instrument : Shimadzu FTIR-8200PC Infrared Spectrometer

Cell : KBr

Resolution : 2 cm⁻¹



Infrared Spectrum of Test Substance (date analyzed: 1997.02.12)



Infrared Spectrum of Test Substance (date analyzed: 1999.03.16)

Results: The results of infrared spectrum did not change before and after the study.

3. Gas Chromatography

Instrument

: Hewlett Packard 5890A Gas Chromatograph

Column

: Methyl Silicone (0.2 mm ϕ × 50m)

Column Temperature

: 80 ° C \rightarrow (10 ° C/min) \rightarrow 220 ° C (3 min)

Flow Rate

: 1 mL/min

Detector

: FID (Flame Ionization Detector)

Injection Volume

: 1 µL

Date (date analyzed)	Peak No.	Retention Time (min)	Area (%)
1997.02.12	1	9.063	100
1999.03.15	1	9.066	100

Results: Gas chromatography indicated one major peak (peak No.1) analyzed on 1997.2.12 and one major peak (peak No.1) analyzed on 1999.3.15. No new trace impurity peak in the test substance analyzed on 1999.3.15 was detected.

4. Conclusions: The test substance was stable for about 2 years in a dark place at room temperature.

APPENDIX P 3

CONCENTRATION OF 1,4-DICHLORO-2-NITROBENZENE
IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

CONCENTRATION OF 1,4-DICHLORO-2-NITROBENZENE IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

Target Concentration			
Date Analyzed	320 ^a	800	2000
1997.02.12	321.4 (100.4) ^b	751.9 (94.0)	1799.9 (90.0)
1997.05.07	326.1 (101.9)	762.8 (95.4)	1838.4 (91.9)
1997.07.30	312.7 (97.7)	770.0 (96.3)	1881.5 (94.1)
1997.10.22	316.8 (99.0)	767.7 (96.0)	1877.1 (93.9)
1998.01.14	330.1 (103.2)	796.7 (99.6)	1983.5 (99.2)
1998.04.08	349.2 (109.1)	739.2 (92.4)	1840.1 (92.0)
1998.07.01	326.7 (102.1)	753.2 (94.2)	1793.5 (89.7)
1998.10.07	297.7 (93.0)	763.6 (95.5)	1837.9 (91.9)
1998.12.16	314.1 (98.2)	722.3 (90.3)	1828.0 (91.4)

^a ppm ^b %

Analytical Method

: The samples were analyzed by gas chromatography.

Instrument

: Hewlett Packard 5890A Gas Chromatograph

Column

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

Column Temperature

: 80 °C \rightarrow (15 °C/min) \rightarrow 250 °C \rightarrow (20 °C/min) \rightarrow 280 °C (3 min)

Flow Rate

: 1 mL/min

Detector.

: FID (Flame Ionization Detector)

Injection Volume

: 1 μL

HOMOGENEITY OF 1,4-DICHLORO-2-NITROBENZENE IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

	Target Concentration		
	320 ^a	800	2000
Coefficient Variation	12.84 ^b	5.47	3.42

Analytical Method

: The samples were analyzed by gas chromatography.

Instrument

: Hewlett Packard 5890A Gas Chromatograph

Column

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

Column Temperature

: 80 °C \rightarrow (15 °C/min) \rightarrow 250 °C \rightarrow (20 °C/min) \rightarrow 280 °C (3 min)

Flow Rate

: 1 mL/min

Detector

: FID (Flame Ionization Detector)

Injection Volume

: 1 µL

^a ppm
^b % (n=7)

APPENDIX P 4

STABILITY OF 1,4-DICHLORO-2-NITROBENZENE
IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

STABILITY OF 1,4-DICHLORO-2-NITROBENZENE IN FORMULATED DIETS IN THE 2-YEAR FEED STUDY

Date Prepared	_	Target Concentration	
	Date Analyzed	320 ^a	2000
1997.01.23	1997.01.23	318.0 (100) ^b	1969.8 (100)
	1997.01.31°	312.0 (98.1)	1828.4 (92.8)
	1997.01.31 ^d	308.4 (97.0)	1808.9 (91.8)
	1997.02.07°	291.4 (91.6)	1724.5 (87.5)
	1997.02.07 ^d	294.1 (92.5)	1728.7 (87.8)

a ppm

Analytical Method

: The samples were analyzed by gas chromatography.

Instrument

: Hewlett Packard 5890A Gas Chromatograph

Column

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

Column Temperature

: 80 °C \rightarrow (15 °C/min) \rightarrow 250 °C \rightarrow (20 °C/min) \rightarrow 280 °C (3 min)

Flow Rate

: 1 mL/min

Detector

: FID (Flame Ionization Detector)

Injection Volume

: 1 µL

^b % (Percentage was based on the concentration on date of preparation.)

^c Animal room samples

^d Cold storage samples

APPENDIX Q 1

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALISYS IN THE 2-YEAR FEED STUDY OF 1,4-DICHLORO-2-NITROBENZENE

METHODS FOR HEMATOLOGY, BIOCHEMISTRY AND URINALYSIS IN THE 2-YEAR FEED STUDY OF 1,4-DICHLORO-2-NITROBENZENE

Item	Method
Hematology	
Red blood cell (RBC)	Light scattering method 1)
Hemoglobin (Hgb)	Cyanmethemoglobin method 1)
Methemoglobin	Multiple-wavelength Spectrophotometric method 4)
Hematocrit (Hct) Mean corpuscular volume (MCV)	Calculated as RBC×MCV/10 1) Light scattering method 1)
Mean corpuscular hemoglobin (MCH)	Calculated as Hgb/RBC×10 '
Mean corpuscular hemoglobin concentration (MCHC)	Calculated as Hgb/Hct×100 1)
Platelet	Light scattering method 1)
White blood cell (WBC)	Light scattering method 1)
Differential WBC	Pattern recognition method ²⁾ (Wright staining)
Biochemistry	
Total protein (TP)	Biuret method 3)
Albumin (Alb)	BCG method 3)
A/G ratio	Calculated as Alb/(TP-Alb) 3)
T-bilirubin	Alkaline azobilirubin method 3)
Glucose	GlcK·G-6-PDH method 3)
T-cholesterol	CE·COD·POD method 3)
Triglyceride	LPL·GK·GPO·POD method 3)
Phospholipid	PLD·ChOD·POD method 3)
Glutamic oxaloacetic transaminase (GOT)	JSCC method 3)
Glutamic pyruvic transaminase (GPT)	JSCC method 3)
Lactate dehydrogenase (LDH)	SFBC method 3)
Alkaline phosphatase (ALP)	GSCC method 3)
γ -Glutamyl transpeptidase (γ -GTP)	L- γ -Glutamyl-p-nitroanilide method ³⁾
Creatine phosphokinase (CPK)	JSCC method "
Urea nitrogen	Urease · GLDH method 3)
Creatinine	Jaffe method 3)
Sodium	Ion selective electrode method 3)
Potassium	Ion selective electrode method 3)
Chloride	Ion selective electrode method
Calcium	OCPC method 3)
Inorganic phosphorus	PNP·XOD·POD method 3)
Urinalysis	· n
pH,Protein,Glucose,Ketone body,Bilirubin,Occult blood,	Urinalysis reagent paper method
Urobilinogen	

- 1) Automatic blood cell analyzer (Technicon H·1: Bayer Corporation)
- 2) Automatic blood cell differential analyzer (MICROX HEG-120NA: OMRON Corporation)
- 3) Automatic analyzer (Hitachi 7070 : Hitachi,Ltd.)
- 4) CO-oximeter (CIBA · CORNING 270 : Ciba Corning Diagnostics Corp)
- 5) Ames reagent strips for urinalysis (Multistix: Bayer Corporation)

APPENDIX Q 2

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR FEED STUDY OF 1,4-DICHLORO-2-NITROBENZENE

UNITS AND DECIMAL PLACE FOR HEMATOLOGY AND BIOCHEMISTRY IN THE 2-YEAR FEED STUDY OF 1,4-DICHLORO-2-NITROBENZENE

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