酢酸ビニルのラット及びマウスを用いた 経口投与によるがん原性試験(混水試験)報告書

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- APPENDIX E 2 CHEMICAL INTAKE CHANGES (TWO-YEAR STUDY:SUMMARY) RAT:FEMALE
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- APPENDIX K 3 ORGAN WEIGHT (TWO-YEAR STUDY:SUMMARY), RELATIVE MOUSE:MALE
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APPENDIX E 1

CHEMICAL INTAKE CHANGES : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g∕kg∕d a y REPORT TYPE : A1 104 SEX : MALE			HEMICAL INTAKE CHENGES LI, ANIMALS	(SUMMARY)			PAGE : 1
Group Name	Administration 1	(weeks)2	3	4	5	6	7
						<u></u>	
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
400 ppm	0.048± 0.007	0.045± 0.010	0.038± 0.005	0.032± 0.002	0.029± 0.001	0.036± 0.002	0.032± 0.005
2000 maa	0.226± 0.015	0.223 ± 0.074	0.185± 0.026	0.153± 0.009	0.146± 0.009	0.173± 0.013	0.149± 0.011
10000 ppm	0.950± 0.057	0.885± 0.085	0.768± 0.053	0.669± 0.041	0.664± 0.066	0.774± 0.106	0.639± 0.045

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STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g∕kg⁄day REPORT TYPE : A1 104 SEX : MALE			NEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAGE	2: 2
Group Name	Administration 8	(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	
400 ppm	0.032± 0.005	0.029± 0.004	0.029± 0.007	0.025± 0.003	0.021± 0.001	0.021± 0.001	0.022± 0.001	
2000 mag	0.146± 0.012	0.139± 0.015	0.136 ± 0.012	0.117± 0.009	0.103± 0.007	0.104± 0.008	0.105± 0.008	
10000 ppm	0.605± 0.038	0.575± 0.037	0.575± 0.034	0.504± 0.079	0.454± 0.053	0.452± 0.026	0.459± 0.027	

(IIAN300)

STUDY NO.: 0162 ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE			IEMICAL INTAKE CHENGES L ANIMALS	(SUMMARY)			PAG	Е: З
Group Name		(weeks)	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
	16	18	20	22	24	26	28	
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	
400 ppm	0.023± 0.002	0.021± 0.002	0.021± 0.002	0.021± 0.002	0.020± 0.002	0.020± 0.002	0.019± 0.001	
2000 ppm	0.112± 0.008	0.104± 0.011	0.101 ± 0.010	0.100± 0.009	0.098± 0.008	0.097± 0.010	0.096± 0.009	
10000 mag	0.476± 0.024	0.454± 0.021	0.438± 0.026	0.432± 0.025	0.425± 0.021	0.422± 0.026	0.420± 0.024	

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STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE			HEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAGE	:: 4
Group Name	Administration	(weeks)				· · · · ·		
	30	32	34	36	38	40	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	
400 ppm	0.020± 0.005	0.019± 0.001	0.018± 0.003	0.019± 0.003	0.019± 0.003	0.018± 0.001	0.018± 0.003	
2000 ppm	0.092± 0.005	0.089± 0.005	0.084± 0.004	0.090± 0.005	0.090± 0.006	0.088± 0.006	0.089± 0.007	
10000 mag	0.408± 0.025	0.398± 0.023	0.376± 0.038	0.412± 0.025	0.427± 0.062	0.413± 0.028	0.407± 0.024	

(HAN300)

DUP Name	Administration						
	44	46	48	50	52	54	56
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
400 ppm	0.016± 0.002	0.018± 0.003	0.017± 0.003	0.018± 0.002	0.017± 0.002	0.017± 0.002	0.016± 0.001
2000 ppm	0.075± 0.006	0.086± 0.005	0.080± 0.006	0.084± 0.006	0.079± 0.009	0.083± 0.005	0.079± 0.006
10000 ppm	0.364± 0.020	0.406 ± 0.053	0.381 ± 0.026	0.403± 0.025	0.388± 0.025	0.393 ± 0.024	0.378± 0.026

CHEMICAL INTAKE CHENGES (SUMMARY)

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(IIAN300)

STUDY NO. : 0162

STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g∕kg⁄day REPORT TYPE : A1 104 SEX : MALE			IEMICAL INTAKE CHENGES L ANIMALS	(SUMMARY)			PAGE :
Group Name	Administration 58	(weeks)60	62	64	66	68	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
400 ppm	0.017± 0.002	0.017± 0.001	0.017± 0.001	0.016± 0.001	0.017± 0.001	0.017± 0.002	0.017± 0.001
2000 maga	0.082± 0.007	0.082± 0.011	0.082± 0.006	0.076± 0.007	0.081± 0.011	0.081± 0.006	0.081± 0.007
10000 mag	0.390± 0.027	0.385 ± 0.032	0.394± 0.030	0.372± 0.035	0.388± 0.037	0.388± 0.045	0.381± 0.047

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STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g /kg/day REPORT TYPE : A1 104 SEX : MALE Group Name Control 400 ppm			NEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAGI	E: 7
Group Name	Administration	(weeks)				······································		
	72	74	76	78	80	82	84	
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	
400 mag	0.017± 0.002	0.018± 0.002	0.018± 0.002	0.018± 0.002	0.018± 0.002	0.019± 0.002	0.018± 0.002	
2000 maa	0.082± 0.007	0.084± 0.010	0.083± 0.010	0.082± 0.014	0.089± 0.018	0.087± 0.015	0.084± 0.013	
10000 ppm	0.393± 0.046	0.410± 0.091	0.433± 0.116	0.397± 0.064	0.404± 0.079	0.401± 0.099	0.398± 0.088	

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STUDY NO.: 0162 ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE			NEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAG	Е: 8
Group Name	Administration	(weeks)						
	86	88	90	92	94	96	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	
400 maga	0.020± 0.004	0.021± 0.003	0.022± 0.005	0.022± 0.004	0.023± 0.004	0.022± 0.004	0.023± 0.005	
2000 ppm	0.089± 0.022	0.094± 0.022	0.096± 0.028	0.097± 0.020	0.100± 0.020	0.101± 0.026	0.104± 0.029	
10000 maga	0.417± 0.106	0.423± 0.135	0,452± 0,138	0.458± 0.133	0.456± 0.185	0.430± 0.079	0.440± 0.077	

(IIAN300)

STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g∕kg⁄day REPORT TYPE : A1 104 SEX : MALE			HEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)		PAGE : 9
Group Name	Administration 100	(weeks) 102	104		· · · · · · · · · · · · · · · · · · ·	
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000			
400 ppm	0.023± 0.006	0.024± 0.006	0.025± 0.008			
2000 ppm	0.103± 0.026	0.106± 0.029	0.107± 0.035			
10000 mag	0.448± 0.088	0.450± 0.082	0.461± 0.123			

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(HAN300)

APPENDIX D 2

CHEMICAL INTAKE CHANGES : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO.: 0162 ANIMAL: RAT F344 UNIT: g/kg/day REPORT TYPE: A1 104 SEX: FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS -

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PAGE : 10

iup 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土 0.000
400 mag	0.060± 0.016	0.058± 0.019	0.056± 0.018	0.052± 0.012	0.057± 0.023	0.055± 0.021	0.040± 0.009
2000 maa	0.266± 0.018	0.257± 0.050	0.235± 0.026	0.240± 0.032	0.229± 0.034	0.225± 0.045	0.184± 0.041
maa 00001	1.062± 0.084	0.980土 0.069	0.921± 0.055	0.902± 0.056	0.845± 0.082	0.801± 0.071	0.730± 0.050

(IIAN300)

STUDY NO.: 0162 ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE			NEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAGE	: 11
Group Name	Administration	(weeks)		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
	8	9	10	11	12	13	14	
						· · · · · · · · · · · · · · · · · · ·		
Control	0.000 ± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000 ± 0.000	0.000± 0.000	0.000± 0.000	
400 ppm	0.038± 0.011	0.036 ± 0.011	0.038 ± 0.014	0.029 ± 0.009	0.027 ± 0.008	0.027± 0.006	0.030 ± 0.015	
						0.001122 0.000	0.000 - 0.010	
2000 mag	0.172± 0.039	0.161± 0.036	0.166± 0.031	0.140± 0.018	0.135± 0.016	0.136± 0.022	0.130± 0.013	
10000 ppm	0.678± 0.042	0.676± 0.045	0.689± 0.045	0.571± 0.033	0.520 ± 0.027	0.543 ± 0.041	0.548± 0.096	

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STUDY NO. : 0162 ANIMAL. : RAT F344 UNIT : g∕kg⁄day REPORT TYPE : A1 104 SEX : FEMALE			IEMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAGE : 12
Group Name		(weeks)			~		
	16	10	20		24	26	28
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
400 ppm	0.043± 0.016	0.042± 0.019	0.039± 0.017	0.040± 0.019	0.041± 0.019	0.038± 0.015	0.035± 0.010
2000 mqq	0.185± 0.045	0.180± 0.056	0.170 ± 0.051	0.173± 0.049	0.172± 0.058	0.171± 0.058	0.156± 0.031
10000 maa	0.655± 0.048	0.617± 0.042	0.565 ± 0.048	0.566± 0.072	0.565± 0.037	0.557± 0.037	0.578± 0.052

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ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE		AI.	L ANIMALS				PAGE : 13
Group Name	Administration	(weeks)		·····			
·	30	32	34	36	38	40	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
400 ppm	0.033± 0.010	0.036± 0.014	0.030± 0.011	0.037± 0.014	0.033± 0.009	0.034± 0.012	0.032± 0.012
2000 ppm	0.164± 0.050	0.155± 0.034	0.144± 0.039	0.173± 0.073	0.152± 0.040	0.156± 0.056	0.152± 0.047
10000 ppm	0.562± 0.043	0.554 ± 0.041	0.512± 0.032	0.577± 0.044	0.567± 0.040	0.600± 0.094	0.555 ± 0.046

CHEMICAL INTAKE CHENGES (SUMMARY)

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STUDY NO. : 0162

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ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE			HIMICAL INTAKE CHENGES LL ANIMALS	(SUMMARY)			PAG	E: 14
Group Name	Administration 44	(weeks) 46	48	50	52	54	56	
Contral	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	
400 ppm	0.028± 0.006	0.030± 0.009	0.031± 0.010	0.027± 0.006	0.023± 0.007	0.028± 0.009	0.027± 0.006	
2000 ppm	0.137± 0.028	0.143± 0.041	0.142± 0.045	0.141± 0.034	0.109± 0.014	0.136 ± 0.021	0.128± 0.023	
10000 maga	0.542± 0.042	0.535土 0.044	0.545± 0.067	0.542± 0.045	0.501± 0.040	0.547± 0.061	0.537 ± 0.059	

CHEMICAL INTAKE CHENGES (SUMMARY)

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(IIAN300)

STUDY NO. : 0162

STUDY NO.: 0162 ANIMAL : RAT F344 UNIT : g /kg / d a y REPORT TYPE : A1 104 SEX : FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) . ALL ANIMALS \sim

PAGE : 15

oup Name	Administration	(weeks)					
	58	60	62	64	66	68	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
400 ppm	0.026± 0.006	0.025± 0.003	0.026± 0.007	0.023± 0.006	0.026± 0.006	0.027± 0.009	0.024± 0.007
2000 ppm	0.135± 0.041	0.131± 0.032	0.126± 0.020	0.117± 0.021	0.134± 0.042	0.139± 0.045	0.123± 0.029
10000 ppm	0.534± 0.053	0.533± 0.054	0.528± 0.064	0.501 ± 0.077	0.537 ± 0.072	0.561± 0.077	0.497± 0.072

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STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS ~

PAGE: 16

oup Name	Administration	(weeks)					
	72	74	76	78	80	82	84
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
400 ppm	0.022± 0.004	0.026± 0.007	0.025± 0.005	0.024± 0.004	0.023± 0.003	0.024± 0.004	0.022± 0.004
2000 ppm	0.119± 0.045	0.135± 0.043	0.132± 0.026	0.126± 0.027	0.124± 0.036	0.123± 0.031	0.118± 0.024
10000 mag	0.478± 0.091	0.544± 0.092	0.568± 0.090	0.554± 0.103	0.544± 0.129	0.546± 0.116	0.515± 0.134

(HAN300)

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STUDY NO. : 0162 ANIMAL. : RAT F344 UNIT : g∕kg⁄day REPORT TYPE : A1 104 SEX : FEMALE			IEMICAL INTAKE CHENGES J. ANIMALS	(SUMMARY)			PAGE :	17
Group Name	Administration	(weeks)						
•	86	88	90	92	94	96	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	
400 ppm	0.024± 0.004	0.025± 0.004	0.023± 0.006	0.025± 0.005	0.025± 0.005	0.025± 0.005	0.024± 0.006	
2000 ppm	0.125± 0.035	0.131 ± 0.030	0.129± 0.027	0.129± 0.028	0.130± 0.029	0.127± 0.027	0.126± 0.025	
10000 maa	0.554± 0.162	0.574± 0.169	0.573± 0.163	0.563± 0.163	0.568± 0.171	0.552± 0.164	0.557± 0.167	

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(IIAN300)

STUDY NO. : 0162 ANIMAL : RAT F344 UNIT : g∕kg⁄day REPORT TYPE : A1 104 SEX : FEMALE	•		EMICAL INTAKE CHENGES L ANIMALS	(SUMMARY)		PAGE : 18
Group Name	Administration 100	(weeks) 102	104	······································	 	
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000			
400 maa	0.025± 0.005	0.028± 0.008	0.027± 0.008			
2000 mag	0.129± 0.029	0.130± 0.034	0.133± 0.037			
10000 ppm	0.583± 0.204	0.582 ± 0.131	0.557± 0.146			

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(IIAN300)

APPENDIX E 3

CHEMICAL INTAKE CHANGES : SUMMARY, MOSUE : MALE

(2-YEAR STUDY)

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g /kg / d a y REPORT TYPE : A1 104 SEX : MALE

PAGE : 1

oup 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
400 ppm	0.085± 0.017	0.071± 0.012	0.066± 0.011	0.064± 0.012	0.058± 0.008	0.052± 0.007	0.050± 0.007
2000 ppm	0.405± 0.064	0.362± 0.049	0.342± 0.045	0,314± 0,037	0.297± 0.041	0.266± 0.034	0.255± 0.034
10000 ppm	2.081± 0.336	1.868± 0.272	1.688± 0.214	1.701± 0.616	1.484± 0.174	1.327± 0.122	1.280± 0.148

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STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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X : MALE							PAGE	: 2
oup Name	Administration	(weeks)						
	8	9	10	11	12	13	14	
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	
400 mag	0.052± 0.009	0.046± 0.007	0.046± 0.007	0.045± 0.006	0.044± 0.006	0.044± 0.005	0.047± 0.015	
2000 ppm	0.269± 0.069	0.240± 0.031	0.228± 0.030	0.228± 0.033	0.221± 0.050	0.219± 0.022	0.223± 0.037	
10000 ppm	1.444± 1.161	1.121± 0.121	1.182± 0.161	1.148± 0.103	1.058± 0.115	1.105± 0.127	1.104± 0.176	

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(HAN300)

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 3

Administration	(weeks)					
16	18	20	22	24	26	28
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
0.045± 0.014	0.047± 0.016	0.043± 0.007	0.042± 0.012	0.040± 0.006	0.038± 0.006	0.041± 0.017
0.216± 0.031	0.228± 0.051	0.198± 0.019	0.193± 0.021	0.205± 0.021	0.189± 0.021	0.183± 0.021
1.039± 0.137	1.110± 0.166	1.054± 0.161	1.024± 0.190	1.059± 0.179	1.006± 0.210	1.019± 0.194
	0.000 ± 0.000 0.045 ± 0.014 0.216 ± 0.031	0.000 ± 0.000 0.000 ± 0.000 0.045 ± 0.014 0.047 ± 0.016 0.216 ± 0.031 0.228 ± 0.051	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.045 ± 0.014 0.047 ± 0.016 0.043 ± 0.007 0.216 ± 0.031 0.228 ± 0.051 0.198 ± 0.019	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.045 ± 0.014 0.047 ± 0.016 0.043 ± 0.007 0.042 ± 0.012 0.216 ± 0.031 0.228 ± 0.051 0.198 ± 0.019 0.193 ± 0.021	0.000 ± 0.000 0.045 ± 0.014 0.047 ± 0.016 0.043 ± 0.007 0.042 ± 0.012 0.040 ± 0.006 0.216 ± 0.031 0.228 ± 0.051 0.198 ± 0.019 0.193 ± 0.021 0.205 ± 0.021	0.000 ± 0.000 0.045 ± 0.014 0.047 ± 0.016 0.043 ± 0.007 0.042 ± 0.012 0.040 ± 0.006 0.038 ± 0.006 0.216 ± 0.031 0.228 ± 0.051 0.198 ± 0.019 0.193 ± 0.021 0.205 ± 0.021 0.189 ± 0.021

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE \sim

roup Name	Administration	(weeks)		•			
	30	32	34	36	. 38	40	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
400 ppm	0.037± 0.007	0.039± 0.011	0.040± 0.004	0.036± 0.003	0.032± 0.004	0.036± 0.004	0.039± 0.006
2000 ppm	0.189± 0.026	0.194± 0.043	0.190± 0.020	0.175± 0.020	0.248± 0.430	0.182± 0.029	0.184± 0.024
10000 maa	0.962± 0.190	1.017± 0.181	1.024± 0.211	0.911± 0.211	0.832± 0.156	0.974± 0.251	0.910± 0.140

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(IIAN300)

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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Group Name	Administration	(weeks)					
	44	46	48	50	52	54	56
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
400 mag	0.036 ± 0.005	0.037± 0.003	0.037± 0.005	0.035± 0.004	0.034± 0.003	0.036± 0.009	0.035± 0.004
2000 maa	0.167± 0.017	0.182± 0.016	0.176± 0.016	0.168± 0.015	0.177± 0.014	0.185± 0.019	0.179± 0.027
10000 mag	0.813± 0.162	0.943± 0.166	0.857± 0.134	0.861± 0.133	0.848± 0.135	0.879± 0.137	0.845± 0.126

(IIAN300)

STUDY NO.: 0163 ANIMAL: MOUSE BDF1 UNIT: g/kg/day REPORT TYPE: A1 104 SEX: MALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 6

Administration	(weeks)					
58	60	62	64	66	68	70
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
0.045± 0.052	0.036± 0.008	0.036± 0.005	0.036± 0.006	0.035± 0.008	0.037± 0.010	0.038± 0.013
0.177 ± 0.018	0.169± 0.014	0.173± 0.017	0.170± 0.016	0.170± 0.015	0.173± 0.014	0.170± 0.015
0.818± 0.143	0.808± 0.101	0.827± 0.105	0.808± 0.105	0.826± 0.114	0.845± 0.148	0.800± 0.112
	58 0.000 ± 0.000 0.045 ± 0.052 0.177 ± 0.018	58 $\overline{60}$ 0.000 ± 0.000 0.000 ± 0.000 0.045 ± 0.052 0.036 ± 0.008 0.177 ± 0.018 0.169 ± 0.014	58 $\overline{60}$ 62 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.045 ± 0.052 0.036 ± 0.008 0.036 ± 0.005 0.177 ± 0.018 0.169 ± 0.014 0.173 ± 0.017	58 60 62 64 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.045 ± 0.052 0.036 ± 0.008 0.036 ± 0.005 0.036 ± 0.006 0.177 ± 0.018 0.169 ± 0.014 0.173 ± 0.017 0.170 ± 0.016	58 $\overline{60}$ 62 64 66 0.000 ± 0.000 0.045 ± 0.052 0.036 ± 0.008 0.036 ± 0.005 0.036 ± 0.006 0.035 ± 0.008 0.177 ± 0.018 0.169 ± 0.014 0.173 ± 0.017 0.170 ± 0.016 0.170 ± 0.015	58 $\overline{60}$ 62 64 66 68 0.000 ± 0.000 0.045 ± 0.052 0.036 ± 0.008 0.036 ± 0.005 0.036 ± 0.008 0.035 ± 0.008 0.037 ± 0.010 0.177 ± 0.018 0.169 ± 0.014 0.173 ± 0.017 0.170 ± 0.016 0.170 ± 0.015 0.173 ± 0.014

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(HAN300)

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS ~

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PAGE: 7

	(weeks)					
72	74	76	78	80	82	84
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
0.040± 0.015	0.039± 0.017	0.041± 0.020	0.044± 0.020	0.040± 0.015	0.040± 0.013	0.040± 0.012
0.175± 0.021	0.176± 0.021	0.182± 0.024	0.183± 0.024	0.180± 0.024	0.194± 0.025	0.189± 0.049
0.835± 0.179	0.841± 0.194	0.888± 0.187	0.965± 0.388	0.914± 0.365	0.944± 0.370	0.915± 0.459
	0.000± 0.000 0.040± 0.015 0.175± 0.021	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.040 ± 0.015 0.039 ± 0.017 0.041 ± 0.020 0.175 ± 0.021 0.176 ± 0.021 0.182 ± 0.024	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.040 ± 0.015 0.039 ± 0.017 0.041 ± 0.020 0.044 ± 0.020 0.175 ± 0.021 0.176 ± 0.021 0.182 ± 0.024 0.183 ± 0.024	0.000 ± 0.000 0.040 ± 0.015 0.039 ± 0.017 0.041 ± 0.020 0.044 ± 0.020 0.040 ± 0.015 0.175 ± 0.021 0.176 ± 0.021 0.182 ± 0.024 0.183 ± 0.024 0.180 ± 0.024	0.000 ± 0.000 0.040 ± 0.015 0.039 ± 0.017 0.041 ± 0.020 0.044 ± 0.020 0.040 ± 0.015 0.040 ± 0.013 0.175 ± 0.021 0.176 ± 0.021 0.182 ± 0.024 0.183 ± 0.024 0.180 ± 0.024 0.194 ± 0.025

(IIAN300)

STUDY NO. : 0163 ANIMAL. : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE

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CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 8

oup Name	Administration (weeks)							
	86	88	90	92	94	96	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	
400 ppm	0.041± 0.011	0.041± 0.012	0.042± 0.013	0.044± 0.013	0.042± 0.013	0.045± 0.015	0.047± 0.022	
2000 pom	0.188± 0.050	0.195± 0.062	0.197± 0.076	0.209± 0.078	0.205± 0.076	0.211± 0.083	0.218± 0.090	
10000 mag	0.912± 0.482	0.941± 0.487	0.946± 0.450	0.979± 0.201	1.004± 0.184	1.038± 0.194	1.016± 0.192	
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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : MALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 9

roup Name	Administration	(weeks)		
	100	102	104	
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	
400 maa	0.050± 0.026	0.049± 0.027	0.059± 0.038	
2000 maa	0.225± 0.094	0.231± 0.104	0.257± 0.140	
10000 mag	1.134± 0.406	1.043± 0.242	1.070± 0.246	
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APPENDIX E 4

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

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE: 10

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
0.092± 0.010	0.081± 0.008	0.081± 0.013	0.083± 0.016	0.077± 0.012	0.081± 0.023	0.076± 0.026
0.483± 0.188	0.421± 0.044	0.403 ± 0.037	0.403± 0.070	0.371± 0.073	0.376± 0.085	0.374± 0.080
2.185± 0.231	2.078± 0.214	2.003± 0.148	2.057± 0.207	1.950± 0.207	1.850± 0.240	1.929± 0.246
	0.092± 0.010 0.483± 0.188	0.000 ± 0.000 0.000 ± 0.000 0.092 ± 0.010 0.081 ± 0.008 0.483 ± 0.188 0.421 ± 0.044	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.092 ± 0.010 0.081 ± 0.008 0.081 ± 0.013 0.483 ± 0.188 0.421 ± 0.044 0.403 ± 0.037	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.092 ± 0.010 0.081 ± 0.008 0.081 ± 0.013 0.083 ± 0.016 0.483 ± 0.188 0.421 ± 0.044 0.403 ± 0.037 0.403 ± 0.070	0.000 ± 0.000 0.092 ± 0.010 0.081 ± 0.008 0.081 ± 0.013 0.083 ± 0.016 0.077 ± 0.012 0.483 ± 0.188 0.421 ± 0.044 0.403 ± 0.037 0.403 ± 0.070 0.371 ± 0.073	0.000 ± 0.000 0.092 ± 0.010 0.081 ± 0.008 0.081 ± 0.013 0.083 ± 0.016 0.077 ± 0.012 0.081 ± 0.023 0.483 ± 0.188 0.421 ± 0.044 0.403 ± 0.037 0.403 ± 0.070 0.371 ± 0.073 0.376 ± 0.085

(IIAN300)

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE -

PAGE : 11

roup Name	Administration (weeks)						
	8	9	10	11	12	13	14
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000	0.000± 0.000
400 mag	0.088± 0.032	0.081± 0.033	0.083± 0.036	0.081± 0.037	0.102± 0.077	0.112± 0.076	0.125± 0.132
2000 ppm	0.378± 0.066	0.363± 0.070	0.363± 0.049	0.360± 0.055	0.402± 0.159	0.464± 0.183	0.458± 0.195
10000 mag	1.978± 0.307	1.776± 0.234	1.903± 0.300	1.938± 0.263	1.902± 0.352	1.963± 0.301	2.047± 0.320

(HAN300)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE: 12

Administration	(weeks)					
16	18	20	22	24	26	28
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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
0.094± 0.061	0.107± 0.099	0.082± 0.045	0.082± 0.040	0.075± 0.021	0.077± 0.037	0.073± 0.032
0.375± 0.051	0.463± 0.466	0.377± 0.093	0.349± 0.103	0.353± 0.120	0.337± 0.096	0.334± 0.055
1.829± 0.203	1,832± 0.229	1.695± 0.225	1.607± 0.204	1.736± 0.232	1.627± 0.218	1.572± 0.281
	$ \begin{array}{rcrcrcr} 16 \\ 0.000 \pm & 0.000 \\ 0.094 \pm & 0.061 \\ 0.375 \pm & 0.051 \end{array} $	16 18 0.000 ± 0.000 0.000 ± 0.000 0.094 ± 0.061 0.107 ± 0.099 0.375 ± 0.051 0.463 ± 0.466	161820 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.094 ± 0.061 0.107 ± 0.099 0.082 ± 0.045 0.375 ± 0.051 0.463 ± 0.466 0.377 ± 0.093	16 18 20 22 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.094 ± 0.061 0.107 ± 0.099 0.082 ± 0.045 0.082 ± 0.040 0.375 ± 0.051 0.463 ± 0.466 0.377 ± 0.093 0.349 ± 0.103	16 18 20 22 24 0.000 ± 0.000 0.094 ± 0.061 0.107 ± 0.099 0.082 ± 0.045 0.082 ± 0.040 0.075 ± 0.021 0.375 ± 0.051 0.463 ± 0.466 0.377 ± 0.093 0.349 ± 0.103 0.353 ± 0.120	16 18 20 22 24 26 0.000 ± 0.000 0.094 ± 0.061 0.107 ± 0.099 0.082 ± 0.045 0.082 ± 0.040 0.075 ± 0.021 0.077 ± 0.037 0.375 ± 0.051 0.463 ± 0.466 0.377 ± 0.093 0.349 ± 0.103 0.353 ± 0.120 0.337 ± 0.096

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(HAN300)

STUDY NO.: 0163 ANIMAL: MOUSE BDF1 UNIT: g/kg/day REPORT TYPE: A1 104 SEX: FEMALE \sim

Administration (weeks)									
30	32	34	36	38	40	42			
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			
0.070± 0.027	0.070± 0.025	0.077± 0.030	0.070± 0.026	0.059± 0.022	0.059± 0.018	0.071± 0.028			
0.319± 0.052	0.322± 0.066	0.358± 0.203	0.303± 0.098	0.296± 0.176	0.281± 0.055	0.339± 0.210			
1.529± 0.206	1.604± 0.266	1.631± 0.260	1.462± 0.224	1.397 ± 0.234	1.476± 0.249	1.562± 0.260			
	30 0.000 ± 0.000 0.070 ± 0.027 0.319 ± 0.052	30 32 0.000 ± 0.000 0.000 ± 0.000 0.070 ± 0.027 0.070 ± 0.025 0.319 ± 0.052 0.322 ± 0.066	30 32 34 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.070 ± 0.027 0.070 ± 0.025 0.077 ± 0.030 0.319 ± 0.052 0.322 ± 0.066 0.358 ± 0.203	30 32 34 36 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.070 ± 0.027 0.070 ± 0.025 0.077 ± 0.030 0.070 ± 0.026 0.319 ± 0.052 0.322 ± 0.066 0.358 ± 0.203 0.303 ± 0.098	30 32 34 36 38 0.000 ± 0.000 0.070 ± 0.027 0.070 ± 0.025 0.077 ± 0.030 0.070 ± 0.026 0.059 ± 0.022 0.319 ± 0.052 0.322 ± 0.066 0.358 ± 0.203 0.303 ± 0.098 0.296 ± 0.176	30 32 34 36 38 40 0.000 ± 0.000 0			

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(IIAN300)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE \sim

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PAGE	;	- 14
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oup Name	Administration	(weeks)					
	44	46	48	50	52	54	56
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
400 ppm	0.059± 0.015	0.059± 0.014	0.056± 0.019	0.060± 0.041	0.051± 0.014	0.052± 0.017	0.046± 0.012
2000 ppm	0.306± 0.214	0.283± 0.093	0.306± 0.111	0.287± 0.121	0.261± 0.090	0.281± 0.145	0.268± 0.194
10000 ppm	1.297 ± 0.237	1.490± 0.248	1.412± 0.317	1.359 ± 0.213	1.273± 0.216	1.308± 0.215	1.227 ± 0.201

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(HAN300)

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 15

Group Name	Administration (weeks)							
	58	60	62	64	66	68	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	
400 ppm	0.048± 0.011	0.047± 0.009	0.049± 0.013	0.047± 0.010	0.045± 0.009	0.053± 0.015	0.050± 0.013	
2000 ppm	0.269± 0.134	0.256± 0.117	0.251± 0.131	0.230± 0.044	0.234± 0.048	0.242± 0.062	0.236± 0.060	
10000 ppm	1.217± 0.190	1.158± 0.176	1.197± 0.211	1.098± 0.161	1.106± 0.189	1.137± 0.197	1.150± 0.182	

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(IIAN300)

STUDY NO.: 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE: 16

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70	Administration (weeks)								
72		76	78	80	82	84			
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			
0.052± 0.014	0.052± 0.012	0.052± 0.012	0.054± 0.010	0.051± 0.014	0.052± 0.012	0.053± 0.012			
0.235± 0.058	0.252± 0.073	0.250± 0.052	0.263± 0.054	0.249± 0.057	0.333± 0.449	0.266± 0.100			
1.024± 0.158	1.191± 0.183	1.112± 0.185	1.209± 0.232	1.131± 0.161	1.170± 0.217	1.117± 0.158			
	0.000± 0.000 0.052± 0.014 0.235± 0.058	0.000 ± 0.000 0.000 ± 0.000 0.052 ± 0.014 0.052 ± 0.012 0.235 ± 0.058 0.252 ± 0.073	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.052 ± 0.014 0.052 ± 0.012 0.052 ± 0.012 0.235 ± 0.058 0.252 ± 0.073 0.250 ± 0.052	0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.000 ± 0.000 0.052 ± 0.014 0.052 ± 0.012 0.052 ± 0.012 0.054 ± 0.010 0.235 ± 0.058 0.252 ± 0.073 0.250 ± 0.052 0.263 ± 0.054	0.000 ± 0.000 0.052 ± 0.014 0.052 ± 0.012 0.052 ± 0.012 0.054 ± 0.010 0.051 ± 0.014 0.235 ± 0.058 0.252 ± 0.073 0.250 ± 0.052 0.263 ± 0.054 0.249 ± 0.057	0.000 ± 0.000 0.052 ± 0.014 0.052 ± 0.012 0.052 ± 0.012 0.052 ± 0.012 0.054 ± 0.010 0.051 ± 0.014 0.052 ± 0.012 0.235 ± 0.058 0.252 ± 0.073 0.250 ± 0.052 0.263 ± 0.054 0.249 ± 0.057 0.333 ± 0.449			

(HAN300)

STUDY NO.: 0163 ANIMAL.: MOUSE BDF1 UNIT: g/kg/day REPORT TYPE: A1 104 SEX: FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 17

Group Name	Administration	(weeks)		······································		• • •	
	86	88	90	92	94	96	98
Cantrol	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
400 mag	0.055 ± 0.008	0.054± 0.008	0.052± 0.008	0.055± 0.008	0.052± 0.012	0.054± 0.008	0.054± 0.008
mqq 000S	0.270± 0.056	0.254± 0.049	0.261± 0.055	0.274± 0.057	0.267± 0.072	0.281± 0.092	0.292± 0.084
10000 ppm	1.191± 0.179	1.181± 0.211	1.147± 0.304	1,248± 0.309	1.228± 0.197	1.270± 0.302	1.332 ± 0.264

(IIAN300)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 UNIT : g/kg/day REPORT TYPE : A1 104 SEX : FEMALE

CHEMICAL INTAKE CHENGES (SUMMARY) ALL ANIMALS

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PAGE : 18

roup Name	Administration	(weeks)			
	100	102	104		
Control	0.000± 0.000	0.000± 0.000	0.000± 0.000		
400 ppm	0.055± 0.015	0.052± 0.010	0.054± 0.013		
2000 ppm	0.270 ± 0.062	0.271± 0.068	0.260± 0.063		
10000 ppm	1.387 ± 0.357	1.409± 0.649	1.396± 0.615		

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(IIAN300)

APPENDIX F 1

HEMATOLOGY : SUMMARY, RAT : MALE

HEMATOLOGY(1) (SUMMARY) SURVIVAL ANIMALS (105)

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : MALE

Dup Name	NO. of Animals	RED BLOOD CELL 1 0 ⁶ /µg	HEMOGLOBIN g / dl	HEMATOCRIT %	MCV f l	MCII Pg	MCHC g∕d¢	PLATELET 1 0 ³ /µ ^g
Control	44	8.29± 1.44	14.9± 2.5	42.4± 6.4	51.8± 5.6	18.1 ± 1.7	34.9± 1.6	904± 177
400 ppm	39	8.23± 1.01	15.0± 1.6	42.3± 4.1	51.7± 2.7	18,2± 0,9	35.3± 0.8	936 ± 138
2000 ppm	36	8.20± 1.71	14.5± 3.0	41.5± 8.0	52.1± 9.4	18,1± 2,8	34.9± 1,5	878± 306
10000 ppm	39	8.35 ± 1.26	14.8± 2.6	42.4 ± 5.9	50.9± 2.5	17.6± 1.7	34.7 ± 3.1	867 ± 208

(IICL070)

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HEMATOLOGY(2) (SUMNARY) SURVIVAL ANIMALS (105)

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up Name	NO. of Animals	WBC 1 0 ³ ,			ferentia BAND		6) SEG	EOS	INO	BAS	0	MON	10	LY	19110	OT	IIERS
Contral	44	5.78±	2.67	1±	1	51±	9	2±	1	0±	0	4±	2	36±	7	5±	6
400 ppm	39	6.38±	3.06	1±	1	53±	10	2±	1	0±	0	4±	2	34±	7	7±	11
2000 ppm	36	7.25±	7.22	1±	1	52土	12	Ι±	1	0 土	0	$5\pm$	2	35±	8	6±	12
10000 ppm	39	7.27±	12.60	0±	1	51±	12	2±	1	0±	0	$5\pm$	2	$36\pm$	9	5±	13

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(IICL071)

BAIS 2

PAGE: 1

APPENDIX F 2

HEMATOLOGY : SUMMARY, RAT : FEMALE

HEMATOLOGY(1) (SUMMARY) SURVIVAL ANIMALS (105)

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : FEMALE

PAGE : 2 NO. of Group Name RED BLOOD CELL HEMOGLOBIN HEMATOCRIT MCV MCII NCIIC PLATELET g/dl Animals $1.0^{6}/\mu$ % fℓ g / dl 1 0³/μl рg Control 36 7.41± 1.40 13.8± 2.6 39.5± 6.1 $53.8 \pm$ 5.0 $18.7 \pm$ 1.8 $34.8 \pm$ 2.9 $682\pm$ 135 400 ppm 7.94± 0.88 39 $15.1 \pm$ 1.5*42,4± 4.0 $53.5\pm$ 2,8 19.1± 0.8* 35.7± 1.1 $706\pm$ 146 2000 ppm 39 7.98± 0.73 $15.0 \pm$ 1.4 41.7± 3.5 $52.3\pm$ 2.8 $18.9 \pm$ 1.4 36.0± 1.9* $675\pm$ 121 10000 ppm 36 7.56 ± 1.32 $13.9 \pm$ 2.6 39.4± 6.5 $52.3\pm$ 4.1 $18.3 \pm$ 1.8 34.9土 2.0 $694\pm$ 161 Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett

(HCL070)

HEMATOLOGY(2) (SUMMARY) SURVIVAL ANIMALS (105)

PAGE : 2 Group Name NO. of WBC (%) Differential WBC Animals 1 0³/με N-BAND N-SEG EOSINO BASO MONO LYMPHO OTHERS Control 36 15 $2\pm$ 5.30 ± 9.90 $1\pm$ 1 $44\pm$ 1 0± 0 $4\pm$ 2 $43\pm$ 14 $6\pm$ 12 400 ppm 39 3.24± 1.46 $1\pm$ 47土 $2\pm$ 1 11 1 0± 0 $4\pm$ 2 $42\pm$ 10 $4\pm$ 3 2000 ppm 39 4.38± 4.22 1± 1 49± 12 1± 1 $0\pm$ 0 $5\pm$ 2 $41\pm$ 12 $3\pm$ 2 10000 ppm 36 $4\pm$ 3.18土 1.52 $1\pm$ 2 49± 10 $2\pm$ 1 0± 0 2 $40\pm$ 10 $5\pm$ 4 Significant difference ; *: $P \leq 0.05$ Test of Dunnett ** : P ≦ 0.01

(IICL071)

APPENDIX F 3

HEMATOLOGY : SUMMARY, MOSUE : MALE

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

HEMATOLOGY(1) (SUMMARY) SURVIVAL ANIMALS (105)

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oup Name	NO. of Animals	RED BLOOD CELL 1 0 ⁶ /µl	NEMOGLOBIN g∕al	NEMATOCR I T %	NCV fØ	MCH Pg	NCIIC g∕dl	PLATELET 1 0 ³ /µe
Control	35	9.48± 0.87	13.5± 1.3	40.8± 3.8	43.1± 1.3	14.2± 0.5	33.0± 0.7	1901± 311
400 ppm	40	8.86± 1.65	12.5± 2.1	38.4± 5.9	43.8± 3.8	14.2± 1.1	32.5± 1.2	1999± 372
2000 ppm	38	9.05± 0.91	12.7± 1.5	39.0± 3.8	43.1± 2.6	14.1± 0.9	$32.7\pm$ 1.3	1895± 502
10000 ppm	32	9.24± 1.27	12.9± 1.6	39.1± 5.0	42.5± 1.5	14.0± 0.7	33.0± 0.8	2140± 424**

(IICL070)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

HEMATOLOGY(2) (SUMMARY) SURVIVAL ANIMALS (105)

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oup Name	NO. of Animals	WBC 1 O ³	/μ		ferential BAND	.,	6) SEG	EOS	SINO	BAS	0	NON	0	LY	1PHO	OTI	HERS
Control	35	$3.36\pm$	2.03	2±	2	33±	16	2±	2	0±	0	3±	2	58±	17	2±	2
400 maa	40	4.41±	8.41	2±	2	34±	14	1±	1	0±	0	3±	1	$56\pm$	16	4土	5
2000 ppm	38	4.05±	7.92	2±	2	29±	13	1±	1	0土	0	4±	2	61±	13	4±	6
10000 ppm	32	$2.41\pm$	1.30	$2\pm$	2	43±	18*	1±	1	0±	0	3±	2	48±	18*	$2\pm$	2

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(IICL071)

BAIS 2

PAGE : 1

APPENDIX F 4

HEMATOLOGY : SUMMARY, MOSUE : FEMALE

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE

HEMATOLOGY(1) (SUMMARY) SURVIVAL ANIMALS (105)

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oup Name	NO. of Animals	RED BLOOD CELL 1 0 ⁶ /µl	HEMOGLOBIN g∕dl	HEMATOCRIT %	MCV f l	MCH pg	MCHC g∕dl	PLATELET 1 0 ³ /µl
Control	25	9.04± 1.11	13.3± 1.7	39.5± 4.4	43.8± 2.0	14.7± 0.6	33.5± 0.8	1248± 299
400 ppm	24	9.27± 0.76	13.6± 1.2	40.2± 3.2	43.4± 1.6	14.7± 0.8	33.8± 1.2	1157± 317
2000 ppm	25	8.95± 1.46	13.1± 2.1	39.1± 5.7	43.9± 1.9	14.7± 0.8	33.5± 1.4	1136± 344
10000 ppm	23	8.42± 1.49	12.2± 1.7	37.5± 4.4	45.3± 5.5	14.7± 1.2	32.5± 1.5*	1149± 391

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BAIS 2

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE

HEMATOLOGY(2) (SUMMARY) SURVIVAL ANIMALS (105)

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roup Name	NO. of Animals	WBC 1 0 ³ / 12		ferential BAND		6) SEG	EOS	INO	BAS	50	MON	0	LY	MPIIO	OTI	HERS
Control	25	1.61± 1.06	3±	3	31±	12	1±	1	0±	0	4±	2	56±	16	5±	5
400 ppm	24	24.10± 103.12	2±	1	27±	14	1土	1	0±	0	3±	2	60±	15	7±	12
2000 ppm	25	5.10± 14.57	$2\pm$	2	36±	18	1±	1	0±	0	4土	2	$50\pm$	18	6±	12
10000 ppm	23	1.62± 1.20	4±	4	$42\pm$	19	0±	1	0±	0	3±	2	$44\pm$	21	$5\pm$	8

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(HCL071)

APPENDIX G 1

BIOCHEMISTRY : SUMMARY, RAT : MALE

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

PAGE: 1 Group Name NO, of TOTAL PROTEIN ALBUMIN A/G RATIO T-BILIRUBIN GLUCOSE T-CHOLESTEROL TRIGLYCERIDE g/dl Animals g∕dl mg∕dl ng∕dl mg/dl mg∕dl Control 44 7.0± 0.5 $3.3\pm$ 0.3 0.9± 0.1 0.27± 0.07 $156 \pm$ 25 $195\pm$ 50 $203\pm$ 143 400 ppm 39 $7.0\pm$ 0.4 $3.2\pm$ 0.3 0.9± 0.1 0.27± 0.06 $149\pm$ 24 $255\pm$ $211\pm$ 49 156 2000 ppm 36 6.9± 0.5 $3.2\pm$ 0.3 0.9± 0.1 0.69± 2.51 $159\pm$ 23 188± 63 $219\pm$ 173 10000 ppm 39 6.9± 0.4 $3.3\pm$ 0.2 0.2* $1.0\pm$ 0.27± 0.10 $157 \pm$ 30 $158\pm$ 48** $156\pm$ 112 Significant difference ; ∗ : P ≦ 0.05 ** ; P ≦ 0.01 Test of Dunnett

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(IICL074)

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

SEX : MALE PAGE : 2 GOT LDH Group Name NO. of PHOSPHOLIPID GPT ALP G-GTP CPK IU/e IU/l IU∕ℓ IU∕ℓ Animals mg∕dl IU/l IU/Ø Control 98 44 $314\pm$ 62土 23 $20\pm$ 10 $169\pm$ 51 $178\pm$ 69 6± 4 $78\pm$ 21 400 ppm 39 $342\pm$ 12 92 $65\pm$ 31 60 $174\pm$ 78 $6\pm$ $77\pm$ 19 $21\pm$ $180\pm$ 3 2000 ppm 36 $305\pm$ 130 96± 130 $24\pm$ 19 203± 140 $228 \pm$ 144 $7\pm$ 7 76土 24 10000 ppm 39 $255\pm$ 92* 70土 37 $18\pm$ 6 $195\pm$ 114 $207\pm$ 81 4± 2 $83\pm$ 27 Significant difference : $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett

(IICL074)

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

PAGE : 3 Group Name NO. of UREA NITROGEN CREATININE SODIUM POTASSIUM CHLORIDE CALCIUM INORGANIC PHOSPHORUS Animals mg/dl ng∕dl mEq∕ℓ mEq / l mEq 🖊 ℓ mg∕dl mg∕d£ Control 44 $23.3\pm$ 8.0 0.7± 0.3 $144\pm$ 1 $3.5\pm$ 0.3 $107\pm$ 2 10.9± 0.6 $4.5 \pm$ 1.2 400 ppm 39 25.5± 8.2 0.7± 0.2 $143\pm$ 1 $3.5\pm$ 0.3 $106 \pm$ 2 10.9± 4.4± 0.4 1.0 2000 ppm 36 23.8± 12,9 0.7± 0.2 $143\pm$ 2 $3.5\pm$ 0.4 107± 2 $10.8 \pm$ 0.4 $4.4\pm$ 1.1 10000 ppm 39 20.6± 4.7 0.6± 0.1 $143\pm$ 2 $3.5 \pm$ 0.4 $107 \pm$ 2 10.6± 0.3* 4.1± 0.8 Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett

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APPENDIX G 2

BIOCHEMISTRY : SUMMARY, RAT : FEMALE

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

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Dun Name	NO. of Animals	TOTAL P g⁄dl	ROTEIN	ALBUMIN g∕dl		A/G RAT	10	T-BILII mg∕d£		GLUCOSE mg∕dl		T-CHOLES mg∕dl	STEROL	TRIGLYC mg∕dl	ERIDE
Control	37	7.1±	0.6	3.7±	0.4	1.1±	0.1	0.23±	0.06	155±	19	136±	44	$100\pm$	54
400 maga	39	7.2±	0.4	3.8±	0.3	1.1±	0.1	0.25±	0.06	160±	27	142±	35	119±	79
2000 ppm	40	7.1±	0.4	$3.7\pm$	0.3	1.1±	0.1	0.24±	0.04	157±	22	$141\pm$	40	131±	125
10000 ppm	36	7.0±	0.7	3.8±	0.4	1.2±	0.1	$0.30\pm$	0.33	148±	23	$127\pm$	33	114±	85

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(IICL074)

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

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up Name	NO. of Animals	PHOSPHO mg/cl&	LIPID	GOT IU/	2	GPT IU/0			e	ALP IU/	?	G−GTP IU∕ℓ		срк I U / е	
Control	37	254±	83	138±	121	32±	18	275±	262	158±	92	2±	1	84±	28
400 ppm	39	$269\pm$	73	$125\pm$	81	34土	22	$326\pm$	402	137±	55	3±	3	93±	59
2000 ppm	40	267±	88	119±	74	$31\pm$	15	239±	101	162±	142	2土	1	81±	14
10000 maa	36	$240\pm$	63	158±	156	28±	14	$238\pm$	112	$141\pm$	66	2±	1	76±	16

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

PAGE: 6 Group Name NO. of UREA NITROGEN CREATININE SODIUM POTASSIUM CHLORIDE CALCIUM INORGANIC PHOSPHORUS Animals mg∕dl mg∕dl mEq∕ℓ mEq∕ℓ mEq/l ng/dl mg/dl Control 37 17.1土 · 2.9 0.5± 0.1 3.5± 0.4 $143\pm$ 2 $106 \pm$ 2 10.5± 0.4 3.9± 0.7 400 ppm 39 16.7± 2.1 $0.5\pm$ 0.1 $143\pm$ 2 $3.5\pm$ 0.4 106± 2 $10.5\pm$ 0.4 $3.9\pm$ 1.1 2000 ppm 40 $16.2 \pm$ 1.8 0.5± 0.1 $142\pm$ 2 $3.6\pm$ 0.3 $106\pm$ 2 $10.5 \pm$ 0.3 $3.6\pm$ 0.7 10000 ppm 36 16.2± 4.7 0.5± 0.1 $142\pm$ 2 3.6± 0.4 $106 \pm$ 2 10.5± 0.4 3.8± 0.8 Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett

(IICL074)

BAIS 2

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APPENDIX G 3

BIOCHEMISTRY : SUMMARY, MOSUE : MALE

STUDY NO. : 0163 ANIMAL. : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

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oup Name	NO. of Animals	TOTAL F g / dl	ROTEIN	ALBUMIN g⁄dl		A/G RAT	10	T−BILII mg∕dl		GLUCOSE mg⁄dl		T-CHOLE mg∕dl	STEROL	TRIGLYCI mg⁄dl	ERIDE
Control	35	5.4±	0.4	2.7±	0.2	1.0±	0.1	0.26±	0.09	190±	40	108±	22	75±	18
400 ppm	40	$5.4\pm$	0.7	2.7±	0.4	1.0±	0.1	0,26±	0.10	$162\pm$	56*	111±	44	68±	24
2000 ppm	38	$5.4\pm$	0.6	2.7±	0.3	$1.1\pm$	0.1	$0.27\pm$	0.08	177±	45	106±	33	70±	22
10000 ppm	32	$5.1\pm$	0.7	$2.7\pm$	0.4	1.1±	0.2*	0.25±	0.07	$158\pm$	52*	90±	29**	48±	18**

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(HCL074)

BAIS 2

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1

BIOCHEMISTRY (SUMMARY)

SURVIVAL ANIMALS (105)

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DUP Name	NO. of Animals	GOT IU/	e	GPT IU/	2	LDII IU/	e	ALP IU/	e	CPK IU/e		UREA N mg∕dl	ITROGEN	SODIUM mEq⁄l	
Control	35	99±	105	31±	30	$327\pm$	152	$165\pm$	57	42±	21	$23.8\pm$	7.2	156±	2
400 maga	40	142±	190	48±	75	578±	832	159±	68	51±	46	27.0±	11.1	$155\pm$	2
2000 ppm	38	168±	267	80±	167	$720\pm$	1155	228±	377	45±	18	25.6±	7.9	$155\pm$	2
10000 ppm	32	$358\pm$	1668	127 土	612	$1488 \pm$	6854	184±	39*	66±	87	29.2±	35.4	156±	2

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(IICL074)

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BAIS 2

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STUDY NO. : 0163 ANIMAL, : NOUSE BDF1 REPORT TYPE : A1 SEX : MALE

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

PAGE : 3 Group Name NO. of CHLORIDE POTASSIUM CALCIUM INORGANIC PHOSPHORUS Animals mEq∕ℓ mEq∕ℓ mg∕dℓ mg∕dl Control 35 $4.4\pm$ 0.5 122上 3 9.0± 0.4 6.4± 0.9 400 ppm 40 4,5± 0,6 $123\pm$ 3 0.6 9.0± 6.3± 1.0 2000 ppm 38 4.4± 0.5 $122\pm$ 3 8.9± 0.3 $6.1\pm$ 0,7 10000 ppm 32 4.4± 0,7 4 $122\pm$ 8.6± 0.6** $6.2\pm$ 1.5 Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett

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(IICL074)

APPENDIX G 4

BIOCHEMISTRY : SUMMARY, MOSUE : FEMALE

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

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Group Name NO. of TOTAL PROTEIN ALBUMIN A/G RATIO T-BILIRUBIN GLUCOSE T-CHOLESTEROL Animals g/dl g / dl mg∕dl mg∕dl mg∕dl Control 24 $5.3\pm$ 0.7 $2.7\pm$ 0.4 $1.1\pm$ 0.2 0.24± 0.09 $145\pm$ 26 $85\pm$ 51 400 ppm 25 $5.2\pm$ 0.4 $2.7\pm$ 0.2 1.1± 0,2 0.28± 0,14 $139\pm$ 30 $69\pm$ 132000 ppm 25 $5.4 \pm$ 0.7 $2.8\pm$ 0.2 $1.1\pm$ 0.3 0.28± 0.11 $121\pm$ 38 97± 101 10000 ppm 23 5.1± 0.9 2.7± 0.4 1.2± 0.2 0.27± 0.09 106± 42** $76\pm$ 45

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

Test of Dunnett

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(IICL074)

BAIS 2

PAGE: 4

TRIGLYCERIDE

12

19

28

31

mg∕dl

65±

 $62\pm$

 $67\pm$

 $56\pm$

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE

BIOCHENISTRY (SUMMARY) SURVIVAL ANIMALS (105)

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: FEMALE Up Name	NO. of Animals	GOT IU/	ę	GPT IU∕ℓ		LDH IU⁄	e	ALP IU/6	?	CPK IU/4	ę	UREA N mg/dl	ITROGEN	SODIUM mEq∕¢	PAGE :
Control	24	102±	73	26±	14	348±	248	287±	112	62±	38	17.0±	3.6	154±	2
400 ppm	25	175±	386	43±	101	981±	2624	293±	109	72±	76	17.7±	6.0	153±	3
2000 ppm	25	107±	67	29±	23	$638\pm$	838	248±	112	111±	209	20.6±	9.8	154±	3
10000 ppm	23	135±	109	30±	22	710±	728	293±	145	107±	105	24.3±	15.6	154±	3
Significant	difference ;	*:P≦0),05	** : P ≦ 0.01				Test of Dun	nett						
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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FENALE

BIOCHEMISTRY (SUMMARY) SURVIVAL ANIMALS (105)

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oup Name	NO. of Animals	POTASSI mEq/		CHLORIDE mEq∕ℓ		CALCIUM mg/dl		I NORGAN mg / 러오	IC PHOSPHORUS
Control	24	4.2±	0.4	121±	3	8.9±	0.7	$6.3\pm$	0.9
400 ppm	25	4.3±	0.5	121±	3	9.1±	0.6	6,5±	1.3
2000 ppm	25	4.3±	0.5	121±	3	9.2±	0.8	$6.7\pm$	1.2
10000 ppm	23	4.3±	0.6	122±	4	9.0±	0.7	$6.5\pm$	1.1

(IICL074)

BAIS 2

PAGE: 6

APPENDIX H 1

URINALYSIS : SUMMARY, RAT : MALE

ıp Name	NO. of	pH_								Protein	Glucose	Ketone body	Bilirubin
	Animals	5.0	6.0	6.5	7.0	7.5	8.0	8,5	CHI	- ± + 2+ 3+ 4+ CIII	- ± + 2+ 3+ 4+ CHI	- ± + 2+ 3+ 4+ CNI	- + 2+ 3+ CIII
Control	44	0	3	1	8	21	11	0		0 0 0 1 15 28	44 0 0 0 0 0	43 1 0 0 0 0	44 0 0 0
400 ppm	41	0	1	9	14	12	5	0	**	0 0 0 0 12 29	41 0 0 0 0 0	39 2 0 0 0 0	41 0 0 0
2000 mag	36	0	2	2	15	11	6	0		0 0 0 0 11 25	36 0 0 0 0 0	35 1 0 0 0 0	35 0 0 1
10000 ppm	39	0	1	9	9	13	7	0	*	0 0 0 0 12 27	39 0 0 0 0 0	33 6 0 0 0 0 *	39 0 0 0

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URINALYSIS

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STUDY NO. : 0162 ANIMAL : RAT F344 SI SE

BAIS 2

oup Name	NO. of Animals	0ccult blood — ± + 2+ 3+ CHI	Virabilinagen ± + 2+ 3+ 4+ CNI		
Control	44	43 0 0 1 0	44 0 0 0 0		
400 ppm	41	41 0 0 0 0	41 0 0 0 0		
2000 ppm	36	36 0 0 0 0	35 0 1 0 0		
10000 ppm	39	33 1 1 2 2	39 0 0 0 0		

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APPENDIX H 2

URINALYSIS : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

up Name	NO. of	pll_		0.5			0.0		Protein	Glucose	Ketone body	Bilirubin
	Animals	5,0	6.0	6.9	7.0	7.5	8.0	8.5 CHI	$-\pm$ + 2+ 3+ 4+ CHI	- ± + 2+ 3+ 4+ CHI	$-\pm$ + 2+ 3+ 4+ CIII	- + 2+ 3+ CIII
Control	41	0	0	2	3	15	16	5	0 0 3 7 13 18	41 0 0 0 0 0	8303000	41 0 0 0
400 ppm	40	0	1	3	3	16	12	5	0 0 0 9 7 24	40 0 0 0 0 0	10 28 2 0 0 0	40 0 0 0
2000 ppm	41	0	0	3	9	13	15	1	0 0 2 3 14 22	41 0 0 0 0 0	14 26 1 0 0 0	41 0 0 0
10000 ppm	38	0	1	2	5	17	9	4	0 0 1 6 10 21	38 0 0 0 0 0	2342000	38 0 0 0

(JCL101)

BAIS 2

URINALYSIS

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STUDY NO. : 0162

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oup Name	NO. of Animals	0ccult blood — ± + 2+ 3+ CHI	Urcbilinogen ± + 2+ 3+ 4+ CHI	
Control	41	38 1 0 1 1	41 0 0 0 0	
400 ppm	40	36 3 1 0 0	40 0 0 0 0	
2000 ppm	41	40 1 0 0 0	41 0 0 0 0	
10000 ppm	38	33 2 1 1 1	38 0 0 0 0	

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URINALYSIS : SUMMARY, MOSUE : MALE

(2-YEAR STUDY)

up Name	NO. of	pli_								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	$-\pm$ + 2+ 3+ 4+ CII1	- ± + 2+ 3+ 4+ CHI	$-\pm$ + 2+ 3+ CH1
Control	35	0	4	8	12	9	1	1		0 1 24 10	0 0	35 0 0 0 0 0	21 14 0 0 0 0	29 3 2 0 1
400 ppm	40	0	5	18	14	2	0	1		0 1 26 12	1 0	40 0 0 0 0 0	32 8 0 0 0 0	32 2 2 1 3
2000 ppm	37	0	5	15	12	5	0	0		0 0 26 11	0 0	37 0 0 0 0 0	23 14 0 0 0 0	32 4 0 1 0
10000 ppm	32	0	13	16	3	0	0	0	**	0 0 9 23	0 0 **	32 0 0 0 0 0	14 14 4 0 0 0	27 1 0 1 3

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SAMPLING DATE : SEX : MALE		TYPE : A1		PAGE : 2
Group Name	NO. of Animals	Urobilinogen ± + 2+ 3+ 4+ Ci∏		
Control	35	35 0 0 0 0		
400 ppm	40	40 0 0 0 0		
2000 ppm	37	37 0 0 0 0		
10000 mag	32	32 0 0 0 0		
Significent	difference	$* * : P \leq 0.05 ** : P \leq 0.01$	Test of CHI SQUARE	
(JCL101)				BAIS 2

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APPENDIX H 4

URINALYSIS : SUMMARY, MOSUE : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 SAMPLING DATE : 104-3 SEX : FEMALE REPORT TYPE : A1

URINALYSIS

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up Name	NO. of	pll_							Protein	Glucose	Ketone body	Occult blood
	Animals	5.0	6.0	6,5	7.0	7.5	8.0	8.5 CHI	$-\pm+2+3+4+$ CII1	$-\pm$ + 2+ 3+ 4+ CHI	$-\pm$ + 2+ 3+ 4+ CIII	$-\pm$ + 2+ 3+ CI
Control	26	0	0	3	9	7	5	2	0 1 19 4 2 0	26 0 0 0 0 0	3 18 4 1 0 0	19 1 4 1 1
400 ppm	27	0	0	1	10	12	4	0	0 4 14 9 0 0	27 0 0 0 0 0	4 12 11 0 0 0	23 4 0 0 0
2000 ppm	25	0	0	5	8	7	5	0	0 1 17 6 1 0	25 0 0 0 0 0	3 10 11 1 0 0	17 5 2 0 1
10000 ppm	24	0	2	3	8	7	3	1	0 0 7 12 5 0 **	24 0 0 0 0 0	1 3 14 6 0 0 **	22 0 2 0 0

(JCL101)

BAIS 2

PAGE : 3

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oup Name	NO. of Animals	Vrobilinogen ± + 2+ 3+ 4+ CHI	
Control	26	26 0 0 0 0	
400 ppm	27	27 0 0 0 0	
2000 ppm	25	25 0 0 0 0	
10000 ppm	24	24 0 0 0 0	

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APPENDIX I 1

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

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

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1

REPORT TYPE : A1 SEX : MALE

Pindires NO. of Animals 6 (%) 10 (%) 14 (%) 14 (%) /aco nodule 0 (0) 0 0 0 0 0 0 0 0 0 0 0 0 0 0			 							
scab 0)rgan	Findings	6	Control (%)	10	400 ppm (%)	14	2000 ppm (%)	11	10000 ppm (%)
butis jandice 0 0 0 0 0 0 1 <td< td=""><td><in∕app< td=""><td>nodule</td><td>0</td><td>(0)</td><td>0</td><td>(0)</td><td>1</td><td>(7)</td><td>1</td><td>(9)</td></in∕app<></td></td<>	<in∕app< td=""><td>nodule</td><td>0</td><td>(0)</td><td>0</td><td>(0)</td><td>1</td><td>(7)</td><td>1</td><td>(9)</td></in∕app<>	nodule	0	(0)	0	(0)	1	(7)	1	(9)
mess i <i i="">i i<i i="">i i<i<i i="">i i<i i="">i i<i i="">i <t< td=""><td></td><td>scab</td><td>0</td><td>(0)</td><td>1</td><td>(10)</td><td>0</td><td>(0)</td><td>0</td><td>(0)</td></t<></i></i></i<i></i></i></i></i></i></i></i></i></i></i></i></i></i></i></i>		scab	0	(0)	1	(10)	0	(0)	0	(0)
mx nodule 0 </td <td>ibcutis</td> <td>j aundi ce</td> <td>0</td> <td>(0)</td> <td>0</td> <td>(0)</td> <td>1</td> <td>(7)</td> <td>1</td> <td>(9)</td>	ibcutis	j aundi ce	0	(0)	0	(0)	1	(7)	1	(9)
red 0 0 0 0 0 1 0 1 0		mass	1	(17)	3	(30)	3	(21)	1	(9)
white zome 0 0 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0 1 0 0 0 1 0 0 1 0	rynx	nodule	0	(0)	0	(0)	. 0	(0)	1	(9)
redizene 0 (0) 1 (10) 1 (7) 1	ng	red	0	(0)	0	(0)	1	(7)	0	(0)
nodule 0 0 1 10 0 0 1 10 0 10		white zone	0	(0)	1	(10)	1	(7)	0	(0)
voluminus 1 (17) 0 (0) 0 (0) 1 (7) 0 (0) 1 (7) 1 (7) wh node enlarged 0 (0) 1 (10) 0 (0) 1 (7) 0 (0) 1 (7) 0 (0) uus nodule 0 (0) 0 (0) 0 (0) 1 (7) 1 (7) 1 (7) 1 (7) nodule enlarged 0 (0) 0 (0) 1 (7) 1 (7) 1 (7) 1 (7) utcer 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 1 (7) 1 (7) 1 (7) stomach utcer 0 (0) 0 (0) 0 (0) 1 (7) 1 (7) 1 (7) stomach utcer 0 (0) 0 (0) 0 (0) 1 (7) 1 (7) 1 (7) stomach utcer 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) 1 (7) 0 (0) stomach utcer 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) 1 (7) 1 (7) stomach utcer 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) 1 (7) 1 (7)		red zone	0	(0)	1	(10)	1	(7)	- 1	(9)
th node enlarged 0 (0) 1 (10) 0 (0) 1 (7) 0 (0) tus nodule 0 (0) 0 (0) 1 (7) 0 (0) ten enlarged 1 (17) 2 (20) 3 (21) 4 (36) nodule 0 (0) 0 (0) 1 (7) 1 (9) istomach ulcer 0 (0) 1 (10) 1 (7) 1 (9) iach gas 0 (0) 0 (0) 0 (0) 1 (9) 1 (9) ial intes nodule 0 (0) 0 (0) 1 (7) 1 (9) iach gas 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) gas nodule 0 (0) 0 (0) 0 (0) 1 (7) 1 (9) ar enlarged 1 (17) 0 (0) 0 (0) 1 (9) 1 (9)		nodule	0	(0)	1	(10)	C	(0)	1	(9)
uss nodule 0<		voluminus	1	(17)	0	(0)	C	(0)	1	(9)
enlarged 1<	mph node	enlarged	0	(0)	1	(10)	C) (0)	1	(9)
nodule 0 (0) 0 (0) 1 (7) 1 (9) astomach ulcer 0 (0) 1 (10) 1 (7) 0 (0) stomach ulcer 0 (0) 0 (0) 0 (0) 1 (7) 1 (9) ach gas 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) ach gas 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) ar nodule 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) ach gas 1 (7) 0 (0) 0 (0) 1 (9) 1 (9) ar enlarged 1 (17) 0 (0) 0 (0) 1 (9)	Vmus	nadule	0	(0)	0	(0)	1	. (7)	0	(0)
stomach ulcer 0 (0) 1 (7) 0 0 0 stomach ulcer 0 0 0 0 0 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 0 1 0	leen	enlarged	1	(17)	2	(20)	3	3 (21)	4	(36)
stomach ulcer 0 (0) 0 (0) 0 (0) 1 (9) nach sas 0 (0) 0 (0) 0 (0) 1 (9) ulcer nodule 0 (0) 0 (0) 1 (7) 0 (0) sas 0 (0) 0 (0) 0 (0) 1 (9) ar enlarged 1 (17) 0 (0) 0 (0) 1 (9)		nodule	0	(0)	0	(0)	1	(7)	. 1	(9)
nach gas 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) gas 0 (0) 0 (0) 0 (0) 1 (7) 0 (0) 1 (9) pr enlarged 1 (17) 0 (0) 0 (0) 1 (9)	prestomach	ulcer	0	(0)	1	(10)	1	. (7)	C	(0)
I intes nodule 0 (0) 0 (0) 1 (7) 0 (0) gas 0 (0) 0 (0) 0 (0) 1 (9) ar enlarged 1 (17) 0 (0) 0 (0) 1 (9)	l stomach	ulcer	0	(0)	0	(0)	C) (0)	1	(9)
gas 0 (0) 0 (0) 0 (0) 1 (9) at enlarged 1 (17) 0 (0) 0 (0) 1 (9)	tomach	Sas	0	(0)	0	(0)	C) (0)	1	(9)
enlarged 1 (17) 0 (0) 0 (0) 1 (9	all intes	nadule	0	(0)	0	(0)	1	(7)	C	(0)
		gas	0	(0)	0	(0)	C) (0)	1	(9)
pale 0 (0) 0 (0) 1 (7) 0 (0	ver	enlarged	1	(17)	0	(0)	C) (0)	1	(9)
		pale	0	(0)	0	(0)	1	. (7)	0	(0)
nodule 1 (17) 0 (0) 1 (7) 0 (0		nodule	1	(17)	0	(0)	1	(7)	C	(0)

PAGE: 1

STUDY NO. : 0162 ANIMAL : RAT F344

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

REPORT TYPE : A1

nodule

granular

cyst

: MALE SEX

0rgan_

liver

pancreas

kidney

nnLe						
Findings	Group Name NO. of Animals	Con 6 (%)	trol 10	400 ppm (%)	14	2000 ppm (%)
cyst		0 (0) 1	(10)	0	(0)
rough		0 (0) 1	(10)	1	(7)
accentuation of lobular structure		0 (0) 1	(10)	0	(0)
nadule		0 (0) 0	(0)	1	(7)

0 (0)

1 (17)

3 (50)

0 (0)

2 (33)

0 (0)

1 (17)

0 (0)

1 (17)

1 (17)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

1 (17)

1 (17)

0 (0)

urin bladd urine:marked retention pituitary enlarged

nodule adrenal enlarged

nodule testis atrophic

nodule brain black zone

hemorrhage

spinal cord brown zane black zone

hemorrhage

white еуе

red

Zymbal gl nadule

0 (0)

0 (0)

0 (0)

0 (0)

3 (30)

1 (10)

· _ ____

PAGE : 2

10000 ppm

0)

9)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

1 (9)

0 (0)

1 (9)

0 (0)

5 (45)

6 (55)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

0 (0)

6)	14	(%	6)	11	(%	6)
10)	0	(0)	0	(0)
10)	1	(7)	1	(9)

1 (7)

0 (0)

1 (7)

1 (7)

4 (29)

0 (0)

0 (0) 1 (7) 0 (0) 1 (7) 1 (10) 3 (21) 2 (20) 7 (50) 0 (0) 1 (7) 1 (10) 0 (0)

0 (0) 1 (7) 0 (0) 1 (7) 1 (10) 0 (0) 1 (10) 0 (0) 0 (0) 0 (0)

1 (7)

1 (10)

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

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : MALE

Drgan	Findings	Group Name NO, of Animals	Control 6 (%)	400 ppm 10 (%)	2000 ppm 14 (%)	10000 maa 11 (%)
muscle	nodule		0 (0)	1 (10)	0 (0)	1 (9)
vertebra	nodule		0 (0)	0 (0)	1 (7)	0 (0)
oleura	nadule		0 (0)	0 (0)	1 (7)	0 (0)
peritoneum	nadule		0 (0)	0 (0)	1 (7)	0 (0)
etroperit	mass		0 (0)	1 (10)	0 (0)	0 (0)
odominal c	hemorrhage		0 (0)	0 (0)	0 (0)	1 (9)
	ascites		0 (0)	1 (10)	1 (7)	1 (9)
horacic ca	pleural fluid		0 (0)	1 (10)	2 (14)	3 (27)
ther	lower jaw:nodule		0 (0)	0 (0)	0 (0)	2 (18)
hale bady	anemic		0 (0)	0 (0)	1 (7)	0 (0)

(IIPT080)

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APPENDIX I 2

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

STUDY NO. : 0162 ANIMAL : RAT F344

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

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PORT TYPE : X :	AI FEMALE					PAGE
gan	Findings	Group Name NO. of Animals	Control 9 (%)	400 ppm 10 (%)	2000 ppm 9 (%)	10000 ppm 13 (%)
bcutis	jaundice		1 (11)	0 (0)	2 (22)	1 (8)
	mass		4 (44)	2 (20)	3 (33)	3 (23)
ng	red		1 (11)	0 (0)	0 (0)	0 (0)
	red patch/zone		0 (0)	0 (0)	1 (11)	0 (0)
	nodule		0 (0)	1 (10)	1 (11)	1 (8)
mph nade	enlarged		0 (0)	0 (0)	0 (0)	2 (15)
leen	enlarged		2 (22)	3 (30)	3 (33)	4 (31)
	white zone		0 (0)	0 (0)	0 (0)	1 (8)
art	white zone		0 (10)	0 (0)	1 (11)	0 (0)
	fluid:red		0 (0)	1 (10)	0 (0)	0 (0)
ophagus	infarct		0 (0)	0 (0)	0 (0)	1 (8)
restomach	ulcer		0 (0)	2 (20)	0 (0)	0 (0)
. stomach	hemorrhage		0 (0)	1 (10)	0 (0)	0 (0)
	ulcer		1 (11)	0 (0)	1 (11)	0 (0)
ver	pale		0 (0)	1 (10)	0 (0)	0 (0)
	red zone		0 (0)	0 (0)	1 (11)	0 (0)
	nodule		0 (0)	2 (20)	2 (22)	0 (0)
	rough		1 (11)	0 (0)	1 (11)	1 (8)
	herniation		0 (0)	0 (0)	1 (11)	0 (0)
ancreas	nodule		1 (11)	0 (0)	0 (0)	0 (0)
dney	white zone		0 (0)	0 (0)	0 (0)	1 (8)
	nadule		0 (0)	0 (0)	0 (0)	1 (8)

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

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1

SEX : FEMALE

PAGE: 5

'gan	Findings	Group Name NO. of Animals	Control 9 (%)	400 ppm 10 (%)	2000 ppm 9 (%)	10000 ppm 13 (%)
in bladd	urine:marked retention		0 (0)	0 (0)	1 (11)	0 (0)
	urine:red		0 (0)	1 (10)	0 (0)	0 (0)
tuitary	enlarged		1 (11)	6 (60)	2 (22)	2 (15)
	red zane		0 (0)	1 (10)	2 (22)	1 (8)
	nadule		0 (0)	0 (0)	1 (11)	1 (8)
renal	enlarged .		0 (0)	0 (0)	0 (0)	1 (8)
ary	cyst		0 (0)	0 (0)	0 (0)	1 (8)
erus	enlarged		0 (0)	0 (0)	2 (22)	0 (0)
	nodule		3 (33)	2 (20)	2 (22)	2 (15)
	dilated lumen		0 (0)	0 (0)	0 (0)	1 (8)
	invagination		0 (0)	0 (0)	1 (11)	0 (0)
ep/cligl	nadule		0 (0)	0 (0)	1 (11)	0 (0)
inal cord	hemorrhage		0 (0)	1 (10)	0 (0)	0 (0)
е	red		0 (0)	0 (0)	0 (0)	2 (15)
rtebra	mass		0 (0)	0 (0)	0 (0)	1 (8)
diastinum	mass		1 (11)	0 (0)	0 (0)	0 (0)
ritoneum	nodule		1 (11)	0 (0)	0 (0)	0 (0)
	nodular		1 (11)	0 (0)	0 (0)	0 (0)
troperit	mass		1 (11)	0 (0)	2 (22)	0 (0)
dominal c	ascites		1 (11)	0 (0)	0 (0)	0 (0)
senterium	mass		1 (11)	0 (0)	0 (0)	0 (0)
pnse	nodule		1 (11)	0 (0)	0 (0)	0 (0)

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

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : FEMALE

PAGE: 6

Findings	Group Name NO. of Animals	9	Control (%)	10	400 mag (%)	9	2000 ppm (%)	13	10000 ppm (%)
pleural fluid		2	(22)	1	(10)	0	(0)	2	(15)
forelimb:nodule		1	(11)	0	(0)	Q	(0)	0	(0)
hindlimb:nodule		0	(0)	1	(10)	0	(0)	0	(0)
lower jaw:nodule		0	(0)	0	(0)	0	(0)	1	(8)
anemic		0	(0)	0	(0)	2	(22)	1	(8)
	pleural fluid forelimb:nodule hindlimb:nodule lower jaw:nodule	FindingsNO. of Animals pleural fluid forelimb:nodule hindlimb:nodule lower jaw:nodule	Findings NO. of Animals 9 pleural fluid 2 forelimb:nodule 1 hindlimb:nodule 0 lower jaw:nodule 0	Findings NO. of Animals 9 (%) pleural fluid 2 (22) forelimb:nodule 1 (11) hindlimb:nodule 0 (0) lower jaw:nodule 0 (0)	Findings NO. of Animals 9 (%) 10 pleural fluid 2 (22) 1 forelimb:nodule 1 (11) 0 hindlimb:nodule 0 (0) 1 lower jaw:nodule 0 (0) 0	Findings NO. of Animals 9 (%) 10 (%) pleural fluid 2 (22) 1 (10) forelimb:nodule 1 (11) 0 (0) hindlimb:nodule 0 (0) 1 (10) lower jaw:nodule 0 (0) 0 (0)	Findings NO. of Animals 9 (%) 10 (%) 9 pleural fluid 2 (22) 1 (10) 0 forelimb:nodule 1 (11) 0 (0) 0 hindlimb:nodule 0 (0) 1 (10) 0 lower jaw:nodule 0 (0) 0 (0) 0	Findings NO. of Animals 9 (%) 10 (%) 9 (%) pleural fluid 2 (22) 1 (10) 0 (0) forelimb:nodule 1 (11) 0 (0) 0 (0) hindlimb:nodule 0 (0) 1 (10) 0 (0) lower jaw:nodule 0 (0) 0 (0) 0 (0)	Findings NO. of Animals 9 (%) 10 (%) 9 (%) 13 pleural fluid 2 (22) 1 (10) 0 (0) 2 forelimb:nodule 1 (11) 0 (0) 0 (0) 0 hindlimb:nodule 0 (0) 1 (10) 0 (0) 0 lower jaw:nodule 0 (0) 0 (0) 0 (0) 1

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APPENDIX I 3

GROSS FINDINGS : SUMMARY, RAT : MALE : SACRIFICED ANIMALS (2-YEAR STUDY)

STUDY NO. : 0162 ANIMAL : RAT F344

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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REPORT TYPE : A1 SEX : MALE

0rgan	Findings	Group Name NO. of Animals	Control 44 (%)	400 ppm 40 (%)	2000 ppm 36 (%)	10000 ppm 39 (%)
skin/app	nodule		3 (7)	5 (13)	7 (19)	5 (13)
subcutis	jaundice		0 (0)	0 (0)	1 (3)	0 (0)
	nadule		1 (2)	0 (0)	0 (0)	0 (0)
	mass		9 (20)	6 (15)	13 (36)	3 (8)
lung	white zone		0 (0)	2 (5)	1 (3)	0 (0)
	nadule		5 (11)	1 (3)	1 (3)	1 (3)
lymph node	enlarged		0 (0)	0 (0)	1 (3)	0 (0)
spleen	enlarged		1 (2)	2 (5)	4 (11)	2 (5)
	deformed		1 (2)	1 (3)	2 (6)	0 (0)
heart	white zone		0 (0)	2 (5)	0 (0)	0 (0)
tongue	nadule		0 (0)	0 (0)	0 (0)	1 (3)
saliyary gl	nodule		1 (2)	1 (3)	0 (0)	0 (0)
forestomach	nodule		0 (0)	0 (0)	0 (0)	1 (3)
	ulcer		0 (0)	1 (3)	1 (3)	1 (3)
	thick		2 (5)	0 (0)	0 (0)	0 (0)
gl stomach	nodule		0 (0)	0 (0)	1 (3)	0 (0)
	ulcer		0 (0)	1 (3)	1 (3)	1 (3)
	thick		0 (0)	0 (0)	0 (0)	1 (3)
small intes	nodule		0 (0)	0 (0)	1 (3)	0 (0)
liver	black zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		1 (2)	1 (3)	0 (0)	1 (3)
	rough		2 (5)	0 (0)	3 (8)	0 (0)

PAGE: 1

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GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1

SEX : MALE

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PAGE : 2

rgan	Findings	Group Name NO. of Animals	44	Control (%)	40	400 ppm (%)	36	2000 ppm (%)		10000 ppm (%)
iver	h					(->		· · · · ·		
	herniation			(7)		(0)		(11)		(3)
ancreas	nadule		0	(0)	1	(3)	0	(0)	0	(0)
i dhey	granular		13	(30)	18	(45)	10	(28)	6	(15)
ituitary	enlarged		4	(9)	2	(5)	1	(3)	• 0	(0)
	red		1	(2)	0	(0)	0	(0)	0	(0)
	red zane		2	(5)	3	(8)	4	(11)	2	(5)
	nodule		2	(5)	4	(10)	4	(11)	4	(10)
nyroid	enlarged		2	(5)	7	(18)	1	(3)	1	(3)
	nadule		0	(0)	0	(0)	0	(0)	1	(3)
drena l	enlarged		1	(2)	1	(3)	0	(0)	0	(0)
stis	nadule		38	(86)	32	(80)	30	(83)	36	(92)
	absence		1	(2)	0	(0)	0	(0)	0	(0)
oididymis	absence		1	(2)	0	(0)	0	(0)	0	(0)
oinal cord	red zone		0	(0)	0	(0)	1	(3)	0	(0)
/ 0	white		2	(5)	7	(18)	5	(14)	2	(5)
	red		0	(0)	1	(3)	0	(0)	0	(0)
ritoneum	nadule		0	(0)	0	(0)	1	(3)	1	(3)
noracic ca	pleural fluid		0	(0)	0	(0)	1	(3)	0	(0)
ther	lower jaw:nodule		٥	(0)	0	(0)	0	(0)	1	(3)

(IIPT080)

BAIS 2

APPENDIX I 4

GROSS FINDINGS : SUMMARY, RAT : FEMALE : SACRIFICED ANIMALS (2-YEAR STUDY)

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1

GROSS FINDINGS (SUMMARY)

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SACRIFICED ANIMALS (105W)

REPORT TYPE : A1 SEX : FEMALE

rgan	Findings	Group Name NO. of Animals	Control 41 (%)	400 ppm 40 (%)	2000 ppm 41 (%)	10000 ppm 37 (%)
kin/app	nodule		0 (0)	0 (0)	2 (5)	0 (0)
	scab		0 (0)	1 (3)	0 (0)	1 (3)
ubcutis	mass		10 (24)	9 (23)	7 (17)	15 (41)
Jng	nadule		2 (5)	1 (3)	1 (2)	1 (3)
vmph node	enlarged		0 (0)	0 (0)	1 (2)	0 (0)
oleen	enlarged		3 (7)	0 (0)	2 (5)	1 (3)
	nadule		1 (2)	0 (0)	0 (0)	0 (0)
	deformed		0 (0)	1 (3)	0 (0)	0 (0)
art	nodule		0 (0)	0 (0)	0 (0)	1 (3)
oth	white		0 (0)	0 (0)	0 (0)	1 (3)
livary gl	nodule		0 (0)	0 (0)	1 (2)	0 (0)
stomach	nodule		0 (0)	1 (3)	1 (2)	0 (0)
ver	white zone		0 (0)	2 (5)	0 (0)	0 (0)
	red zone		1 (2)	0 (0)	0 (0)	0 (0)
	nodule		0 (0)	1 (3)	2 (5)	2 (5)
	rough		1 (2)	0 (0)	1 (2)	2 (5)
	herniation		2 (5)	2 (5)	1 (2)	3 (8)
dney	white zone		0 (0)	0 (0)	0 (0)	1 (3)
	cyst		0 (0)	1 (3)	0 (0)	0 (0)
	deformed		0 (0)	1 (3)	0 (0)	0 (0)
	granular		3 (7)	3 (8)	2 (5)	1 (3)
tuitary	enlarged		3 (7)	3 (8)	3 (7)	5 (14)

PAGE: 3

STUDY NO. : 0162 ANIMAL : RAT F344

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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REPORT TYPE : A1 SEX ; FEMALE

SEX :	FEMALE									PAGE : 4
0rgan	Findings	Group Neme NO. of Animals	41	Control (%)	40	400 ppm (%)	41	2000 ppm (%)	37	10000 maga (%)
pituitary	red		0	(0)	1	(3)	0	(0)	0	(0)
	red zone		5	(12)	2	(5)	7	(17)	2	(5)
	nodule		3	(7)	2	(5)	3	(7)	2	(5)
thyroid	enlarged		0	(0)	0	(0)	1	(2)	1	(3)
	red		1	(2)	0	(0)	0	(0)	0	(0)
adrenal	enlarged		0	(0)	0	(0)	1	(2)	2	(5)
OUAFY	cyst		3	(7)	4	(10)	3	(7)	4	(11)
uterus	nodule		7	(17)	6	(15)	8	(20)	5	(14)
prep/cli gl	nodule		2	(5)	1	(3)	2	(5)	0	(0)
еуе	white		4	(10)	6	(15)	6	(15)	4	(11)
	red		1	(2)	0	(0)	0	(0)	0	(0)
Zymbal gl	nadule		0	(0)	0	(0)	1	(2)	0	(0)
other	lower jaw:nodule		0	(0)	1	(3)	0	(0)	0	(0)

 $(\mathbf{x}_{i},\mathbf{y}_{i})$

(IIPT080)

BAIS 2

APPENDIX J 1

ORGAN WEIGHT, ABSOLUTE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

SEX : MALE UNIT: g Group Name NO. of Body Weight ADRENALS HEART LUNGS KIDNEYS TESTES Animals Control 44 424± 53 0.091 ± 0.025 3.770 ± 1.422 1.239± 0.127 1.496± 0.264 2.976 ± 0.435 400 ppm 40 424± 44 0.089± 0.014 3.618 ± 1.196 1.262± 0.111 1.505± 0.201 3.167± 0.443 2000 ppm 36 433± 40 0.087± 0.014 3.484 ± 1.334 1.266± 0.104 1.547 ± 0.312 2,917± 0.308 10000 ppm 39 397± 34** 0.085± 0.018 3.770± 1.359 1.195± 0.107 1.445± 0.257 2,743± 0.272** Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett (IICL040)

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1

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

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BAIS 2

PAGE : 1

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : MALE UNIT: g

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PAGE : 2

roup Name	NO. of Animals	SPLEE	EN	LIVI	ER	BRA	N	· · · · · ·	 	
Control	44	1.152±	0.376	$12.795 \pm$	2.081	2.034±	0.059			
400 ppm	40	1.280±	0.909	$13.479 \pm$	1.931	$2.037 \pm$	0.064			
2000 ppm	36	1.412±	1.115	12.699±	1,595	2.018±	0.074			
10000 maa	39	1.148±	0.602	11.500±	1.799**	2.019±	0.055			
Significant	difference ;	*:P≦0.05	5 **	: P ≦ 0.01			Test of Dunnett	· · · · · · · · · · · · · · · · · · ·	 	
ICL040)					· · · · ·				· · ·	BAI

APPENDIX J 2

ORGAN WEIGHT, ABSOLUTE : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : FEMALE UNIT: g

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

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PAGE : 3 Group Name NO. of Body Weight ADRENALS OVARIES HEART LUNGS KIDNEYS Animals Control 41 299± 40 0.085± 0.017 0.192± 0.284 0,957± 0,107 1.118± 0.151 2.003± 0.190 400 ppm 40 298± 37 0.083± 0.014 0.158± 0.142 0.945± 0.089 1.120± 0.241 1.974± 0.183 2000 ppm 41 300± 34 0.081± 0.017 0.141± 0.060 0.955± 0.085 1.077± 0.110 1.981± 0.227 10000 ppm 37 284± 50 0.637± 3.142 0.152± 0.154 0.932± 0.116 1.066± 0.193 2.042 ± 0.210 Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett

(IICL040)

BAIS 2

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : FEMALE UNIT: g

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

SPLEEN Group Name NO. of LIVER BRAIN Animals 1.457± 3.350 Control 41 8.049± 1.363 1.868± 0.049 0.624± 0.224 400 ppm 40 7.616± 1.123 1.862± 0.049 2000 ppm 41 0.753 ± 0.623 7.679± 1.066 1.868± 0.053 37 10000 ppm 0.667± 0.415 7.616± 1.744 1.862± 0.066 Significant difference : $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett (IICL040) BAIS 2

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PAGE: 4

APPENDIX J 3

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOSUE : MALE

(2-YEAR STUDY)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

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

up Name	NO. of Animals	Body	Weight	ADRE	NALS	TEST	ES	HEAR'	Г	LUNG	5	KIDN	EYS	
Control	35	47.5±	5.7	0.016±	0.005	0.217±	0.034	0.222±	0.023	0.238±	0,053	0.652±	0.051	
400 ppm	42	44.8±	7.4	0.017±	0.006	0.215±	0.042	$0.226\pm$	0.025	0.235±	0.082	0.664±	0.060	
2000 ppm	38	46.4±	6.9	0.052±	0.225	0.223±	0.028	$0.227\pm$	0.022	0.231±	0.038	0.684±	0,058	
10000 ppm	33	33.2±	6.7**	0.014±	0.005	0,215±	0.026	0.190±	0.025**	0.212±	0.048**	0.569±	0.072**	
Significant	difference ;	*:P≦0.	.05 **	: P ≦ 0.01			Test	of Dunnett						

UDY NO. : 0163 1MAL : NOUSE I PORT TYPE : A1 X : MALE IT: g	BDF1					WEIGHT:ABSON AL ANIMALS	UTE (SUMMARY) (105)	PAGE : 2
	NO. of Animals	SPLEE	EN .	LIVE	ĒR	BRA	N .	
Control	35	0.107±	0.105	1.747±	0,692	0.450±	0.015	
400 ppm	42	0.138±	0.195	$1.885 \pm$	1.327	0.449±	0.015	
2000 ppm	38	0.141±	0.187	1.899±	0.642	0.450±	0.012	
10000 mqq	33	0.087±	0.103	1.403±	0.598**	0.444±	0.012	

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APPENDIX J 4

ORGAN WEIGHT, ABSOLUTE : SUMMARY, MOSUE : FEMALE (2-YEAR STUDY)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE UNIT: g

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

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PAGE : 3

oup Name	NO. of Animals	Body Weight	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS	
Control	26	31.9± 4.3	0.016± 0.004	0.097± 0.144	0.176± 0.028	0.204± 0.021	0.450± 0.083	
400 ppm	27	32.1± 3.4	0.018± 0.004	0.084± 0.140	0.184± 0.039	0.220± 0.047	0.454± 0.065	
2000 mag	25	$33.3\pm$ 5.8	0.017± 0.005	0.065± 0.057	0.178± 0.029	0.226± 0,064	0.465± 0.068	
10000 ppm	23	26.2± 4.3**	0.014± 0.004	0.148± 0.410	0.162± 0.028	0.223± 0.097	0.463± 0.094	
Significant	difference ;	*:l'≦0.05 **:	P ≦ 0.01	Test	; of Dunnett			
CL040)								

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SPLEEN 98± 0.349 1.44	LIVER 14± 0.371	BRAIN 0.480±	0.034
98± 0.349 1.44	14± 0.371		0.034
47± 0.351 1.54	11± 0.503	0.473±	0.022
73± 0.520 1.52	21± 0.349	$0.476 \pm$	0.016
50± 0.132 1.25	54± 0.298	0.475±	0.041
	0.132 1.25	0.132 1.254± 0.298	0.132 1.254± 0.298 0.475±

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APPENDIX I 5

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

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

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1

: MALE

SEX

rgan	Findings	Group Name NO. of Animals	Cantrol 15 (%)	400 ppm 8 (%)	2000 ppm 12 (%)	10000 ppm 17 (%)
kin/app	ulcer		1 (7)	0 (0)	0 (0)	0 (0)
	erosion		1 (7)	0 (0)	0 (0)	0 (0)
ubcutis	dry		0 (0)	0 (0)	1 (8)	0 (0)
	mass		0 (0)	1 (13)	0 (0)	3 (18)
arynx	nodule		0 (0)	0 (0)	0 (0)	1 (6)
ung	nodulə		2 (13)	0 (0)	3 (25)	5 (29)
eban riam	enlarged		1 (7)	4 (50)	2 (17)	1 (6)
ymus	mass		0 (0)	0 (0)	0 (0)	1 (6)
leen	enlarged		3 (20)	1 (13)	0 (0)	0 (0)
	black zone		1 (7)	0 (0)	0 (0)	1 (6)
	nadule	Ň	0 (0)	0 (0)	3 (25)	0 (0)
art	white		0 (0)	0 (0)	0 (0)	1 (6)
al cavity	mass		0 (0)	0 (0)	0 (0)	1 (6)
alivary gl	nodule		0 (0)	0 (0)	0 (0)	1 (6)
ophagus	dilated		0 (0)	0 (0)	1 (8)	0 (0)
restomach	nadule		0 (0)	0 (0)	1 (8)	0 (0)
stomach	nadule		0 (0)	1 (13)	0 (0)	1 (6)
	ulcer		0 (0)	0 (0)	1 (8)	0 (0)
	thick		1 (7)	0 (0)	1 (8)	0 (0)
all intes	nodule		0 (0)	1 (13)	0 (0)	0 (0)
iet-	yellow		0 (0)	0 (0)	1 (8)	0 (0)

1 (7)

0 (0)

1 (8)

PAGE : 1

white zone

0 (0)

STUDY NO. : 0163

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

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ANIMAL : MOUSE BDF1 REPORT TYPE : A1

SEX : MALE

PAGE : 2

gan		roup Name), of Animals	15	Control (%)	8	400 ppm (%)	12	2000 ppm (%)	17	10000 ppm (%)
ver	nadule		4	(27)	3	(38)	4	(33)		(24)
ll bladd	dilated			(0)		(0)		(0)		(6)
ncreas	nadule			(0)		(25)		(8)		(0)
ney	white zone			(7)		(0)	0	(0)	0	(0)
	nodule		0	(0)	0	(0)	1	(8)	1	(6)
	hydranephras i s		2	(13)	0	(0)	0	(0)	1	(6)
eter	dilated		1	(7)	0	(0)	0	(0)	0	(0)
in bladd	nodule		0	(0)	0	(0)	1	(8)	0	(0)
	urine:marked retention		4	(27)	1	(13)	1	(8)	2	(12)
uitary	enlarged		2	(13)	0	(0)	0	(0)	0	(0)
enal	enlarged		0	(0)	. 0	(0)	0	(0)	1	(6)
stis	nadule		1	(7)	0	(0)	0	(0)	0	(0)
nin ves	nadule		0	(0)	0	(0)	1	(8)	0	(0)
ep/cligl	enlarged		0	(0)	0	(0)	0	(0)	1	(6)
	nodule		1	(7)	0	(0)	1	(8)	2	(12)
ain	red zone		0	(0)	0	(0)	1	(8)	0	(0)
iph nerv	nodule		1	(7)	0	(0)	0	(0)	0	(0)
-der gl	nadule		0	(0)	1	(13)	2	(17)	0	(0)
tebra	brown		0	(0)	0	(0)	1	(8)	0	(0)
diastinum	nadule		1	(7)	0	(0)	1	(8)	1	(6)
itaneum	nadule		1	(7)	0	(0)	0	(0)	0	(0)
troperit	mass		1	(7)	0	(0)	1	(8)	0	(0)

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

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

	nale					PAGE :
-gan	Findings	Group Name NO. of Animals 11	Control 5 (%)	400 ppm 8 (%)	2000 ppm 12 (%)	10000 ppm 17 (%)
odominal c	hemorrhage	2	2 (13)	0 (0)	1 (8)	0 (0)
	mass	(0 (0)	1 (13)	0 (0)	0 (0)
	pleural fluid	(0 (0)	1 (13)	0 (0)	0 (0)
	ascites		4 (27)	1 (13)	3 (25)	3 (18)
oracic ca	hemorrhage	(0 (0)	0 (0)	0 (0)	1 (6)
	pleural fluid	:	1 (7)	2 (25)	3 (25)	1 (6)
her	hindlimb:nodule	(0 (0)	0 (0)	1 (8)	0 (0)
	upper jaw:nodule	(0 (0)	0 (0)	0 (0)	3 (18)
	lower jaw:nodule	(0 (0)	0 (0)	0 (0)	2 (12)
nale body	anemic		1 (7)	0 (0)	0 (0)	0 (0)

(IIPT080)

BAIS 2

PAGE: 3

APPENDIX I 6

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

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

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1

SEX

: FEMALE

Group Name Control 400 ppm 2000 ppm 10000 ppm Organ_ Findings NO. of Animals 24 (%) 23 (%) 25 (%) 26 (%) subcutis anemic 1 (4) 0 (0) 0 (0) 0 (0) . edema 4 (17) 7 (30) 5 (20) 3 (12) jaundice 0 (0) 0 (0) 1 (4) 0 (0) nodule 0 (0) 0 (0) 0 (0) 1 (4) mass 3 (13) 5 (22) 1 (4) 2 (8) lung red 1 (4) 0 (0) 2 (8) 3 (12) red zone 1 (4) 1 (4) 0 (0) 2 (8) edema 1 (4) 0 (0) 1 (4) 0 (0) nodule 2 (8) 2 (9) 0 (0) 1 (4) lymph node enlarged 7 (29) 5 (22) 9 (36) 4 (15) thymus enlarged 1 (4) 1 (4) 0 (0) 0 (0) spleen enlarged 5 (21) 9 (39) 5 (20) 5 (19) white zone 0 (0) 1 (4) 0 (0) 0 (0) heart dilated 0 (0) 0 (0) 1 (4) 0 (0) tongue nodule 1 (4) 0 (0) 0 (0) 0 (0) forestomach nodule 0 (0) 1 (4) 0 (0) 0 (0) ulcer 0 (0) 0 (0) 0 (0) 1 (4) thick 0 (0) 0 (0) 0 (0) 2 (8) gl stomach red patch/zone 0 (0) 0 (0) 1 (4) 0 (0) hemorrhage 0 (0) 0 (0) 0 (0) 1 (4) thick 0 (0) 0 (0) 0 (0) 1 (4). stomach gas 0 (0) 0 (0) 0 (0) 1 (4)

PAGE : 4

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

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1

		Group Name		Control		400		8000		10000
gan	Findings	NO. of Animals	24	Control (%)	23	400 ppm (%)	25	2000 ppm (%)	26	10000 ppm (%)
all intes	Sas		0	(0)	0	(0)	0	(0)	1	(4)
rge intes	gas		0	(0)	0	(0)	0	(0)	1	(4)
ver	enlarged		1	(4)	4	(17)	3	(12)	1	(4)
	pale		0	(0)	0	(0)	0	(0)	1	(4)
	white zone		7	(29)	6	(26)	5	(20)	4	(15)
	red zone	• •	1	(4)	1	(4)	0	(0)	2	(8)
	black zone		0	(0)	1	(4)	0	(0)	0	(0)
	nadule		1	(4)	2	(9)	0	(0)	3	(12)
	roush		1	(4)	0	(0)	0	(0)	1	(4)
il bladd	dilated		0	(0)	1	(4)	0	(0)	0	(0)
ancreas	nadule		0	(0)	1	(4)	1	(4)	2	(8)
dney	enlarged		0	(0)	0	(0)	1	(4)	0	(0)
	pale		2	(8)	0	(0)	0	(0)	1	(4)
	white zone		0	(0)	0	(0)	1	(4)	0	(0)
	nadule		2	(8)	1	(4)	0	(0)	1	(4)
	hydronephrosis		2	(8)	0	(0)	2	(8)	3	(12)
in bladd	urine:marked retention		1	(4)	0	(0)	2	(8)	0	(0)
tuitary	enlarged		4	(17)	1	(4)	1	(4)	1	(4)
	nodule		2	(8)	0	(0)	0	(0)	0	(0)
ary	enlarged		4	(17)	2	(9)	4	(16)	4	(15)
	red		0	(0)	1	(4)	0	(0)	0	(0)
	nodule		1	(4)	1	(4)	0	(0)	0	(0)

STUDY NO. : 0163

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

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ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE

PAGE	;	6

-gan	Findings	Group Name Co NO. of Animals 24 (%	ntrol 400 ppm) 23 (%)	2000 ppm 25 (%)	10000 ppm 26 (%)
Jary	cyst	0 (0) 2 (9)	2 (8)	3 (12)
terus	nodule	9 (3		8 (32)	7 (27)
	mass	0 (0) 1 (4)	0 (0)	0 (0)
	dilated lumen	0 (0) 0 (0)	0 (0)	1 (4)
ain	red zone	1 (4) 0 (0)	0 (0)	0 (0)
	hemorrhage	1 (4) 0 (0)	0 (0)	1 (4)
eriph nerv	nodule	0 (0) 0 (0)	1 (4)	0 (0)
lscle	mass	0 (0) 0 (0)	1 (4)	0 (0)
diastinum	nodule	0 (0) 1 (4)	0 (0)	0 (0)
	mass	0 (0) 1 (4)	2 (8)	2 (8)
ritoneum	nadule	0 (0) 1 (4)	1 (4)	0 (0)
odominal c	hemorrhage	1 (4) 1 (4)	1 (4)	1 (4)
	ascites	7 (29	9) 11 (48)	6 (24)	8 (31)
oracic ca	hemarrhage	0 ()	0) 0 (0)	1 (4)	0 (0)
	mass	0 ()	0) 1 (4)	0 (0)	0 (0)
	pleural fluid	10 (4)	2) 8 (35)	12 (48)	11 (42)
her	hemoirthage	0 ((0) 0 (0)	0 (0)	1 (4)
	ear:nodule	1 (4	4) 0 (0)	0 (0)	0 (0)
	lower jaw:nodule	0 ((0) 0 (0)	0 (0)	3 (12)
ole body	anemic	1 (4	4) 1 (4)	0 (0)	0 (0)

APPENDIX I 7

GROSS FINDINGS : SUMMARY, MOSUE : MALE : SACRIFICED ANIMALS (2-YEAR STUDY)

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

ANIMAL : MOUSE BDF1 REPORT TYPE : A1 ; MALE

STUDY NO. : 0163

SEX

0rgan	Findings	Group Name NO. of Animals	Control 35 (%)	400 ppm 42 (%)	2000 m 38 (%)	10000 ppm 33 (%)
skin/app	nadule		0 (0)	0 (0)	1 (3)	0 (0)
	ulcer		0 (0)	1 (2)	1 (3)	0 (0)
	erosion		0 (0)	3 (7)	0 (0)	0 (0)
	scab		0 (0)	1 (2)	0 (0)	0 (0)
subcutis	mass		2 (6)	1 (2)	3 (8)	1 (3)
larynx	nodule		0 (0)	0 (0)	0 (0)	1 (3)
lung	nodule		7 (20)	7 (17)	8 (21)	4 (12)
lymph node	enlarged		3 (9)	1 (2)	3 (8)	5 (15)
thymus	enlarged		0 (0)	0 (0)	1 (3)	0 (0)
spleen	enlarged		0 (0)	0 (0)	2 (5)	1 (3)
	black zone		0 (0)	0 (0)	2 (5)	2 (6)
	nodule		1 (3)	2 (5)	0 (0)	0 (0)
	accentuation of white pulp		1 (3)	0 (0)	0 (0)	0 (0)
forestomach	nodule		1 (3)	0 (0)	0 (0)	3 (9)
	thin		0 (0)	0 (0)	0 (0)	1 (3)
	thick		0 (0)	0 (0)	0 (0)	2 (6)
gl stomach	nadule		0 (0)	0 (0)	0 (0)	1 (3)
	ulcer		1 (3)	0 (0)	0 (0)	0 (0)
	thick		11 (31)	19 (45)	14 (37)	3 (9)
liver	white zone		0 (0)	3 (7)	1 (3)	1 (3)
	red zane		1 (3)	2 (5)	0 (0)	2 (6)

22 (63)

20 (48)

17 (45)

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nadule

12 (36)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

other

tail:nodule

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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SEX :	MALE					PAGE : 2
0rgan	Findings	Group Name NO. of Animals	Control 35 (%)	400 ppm 42 (%)	mqq 2000 38 (%)	10000 ppm 33 (%)
pancreas	nadule		2 (6)	1 (2)	0 (0)	0 (0)
kidney	white zone		1 (3)	0 (0)	0 (0)	0 (0)
	cyst		1 (3)	1 (2)	1 (3)	0 (0)

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kidney	white zone	1 (3)	0 (0)	0 (0)	0 (0)
	cyst	1 (3)	1 (2)	1 (3)	0 (0)
ureter	dilated	0 (0)	1 (2)	0 (0)	0 (0)
urin bladd	urine:marked retention	2 (6)	8 (19)	4 (11)	0 (0)
	urine:turbid	1 (3)	0 (0)	0 (0)	0 (0)
pituitary	nadule	0 (0)	1 (2)	0 (0)	0 (0)
thyroid	enlarged	0 (0)	0 (0)	1 (3)	0 (0)
parathyroid	nodule	1 (3)	0 (0)	0 (0)	0 (0)
testis	red zone	0 (0)	0 (0)	1 (3)	0 (0)
	nodule	0 (0)	1 (2)	0 (0)	0 (0)
semin ves	nadule	0 (0)	0 (0)	1 (3)	0 (0)
prostate	nodule	0 (0)	1 (2)	0 (0)	0 (0)
prep/cli gl	nodule	15 (43)	12 (29)	19 (50)	9 (27)
еуө	turbid	1 (3)	1 (2)	0 (0)	0 (0)
	white	0 (0)	1 (2)	0 (0)	0 (0)
llarder gl	enlarged	2 (6)	2 (5)	1 (3)	1 (3)
	nodule	1 (3)	0 (0)	1 (3)	0 (0)
abdominal c	ascites	0 (0)	0 (0)	0 (0)	1 (3)
mesenterium	red zone	0 (0)	1 (2)	0 (0)	0 (0)
adipose	nodule	1 (3)	0 (0)	0 (0)	0 (0)

0 (0)

0 (0)

0 (0)

1 (3)

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE

PAGE: 3

(0) 0 (0) 0 (0) 0 (0)	0 (0) 1 (3)
ear:nodule 0 (0) 1 (2)	0 (0) 0 (0)

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BAIS 2

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APPENDIX I 8

GROSS FINDINGS : SUMMARY, MOSUE : FEMALE : SACRIFICED ANIMALS (2-YEAR STUDY)

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE

PAGE :	4	

rgan	Findings	Group Name NO. of Animals	26	Control (%)	27	400 ppm (%)	25	2000 ppm (%)	23	10000 ppm (%)
kin/app	nodule		0	(0)	0	(0)	0	(0)	. 1	(4)
ubcutis	mass		1	(4)	0	(0)	1	(4)	2	(9)
ng	white zone		0	(0)	1	(4)	0	(0)	0	(0)
	nodule		1	(4)	3	(11)	3	(12)	2	(9)
nph nade	enlarged		3	(12)	3	(11)	3	(12)	2	(9)
leen	enlarged		1	(4)	4	(15)	1	(4)	2	(9)
	nodule		1	(4)	0	(0)	2	(8)	1	(4)
	nodular		0	(0)	0	(0)	0	(0)	1	(4)
estomach	thick		0	(0)	0	(0)	0	(0)	1	(4)
stomach	ulcer		0	(0)	0	(0)	1	(4)	0	(0)
	thick		5	(19)	5	(19)	2	(8)	1	(4)
ver-	white patch/zone		0	(0)	0	(0)	1	(4)	0	(0)
	red zone		0	(0)	2	(7)	0	(0)	6	(26)
	nodule		8	(31)	8	(30)	7	(28)	2	(9)
	cyst		0	(0)	1	(4)	0	(0)	0	(0)
ncreas	nodule		1	(4)	0	(0)	0	(0)	2	(9)
dney	atrophic		0	(0)	0	(0).	1	(4)	0	(0)
	red zone		0	(0)	1	(4)	0	(0)	0	(0)
	cyst		0	(0)	1	(4)	0	(0)	0	(0)
	rough		0	(0)	1	(4)	0	(0)	0	(0)
	hydronephros i s		0	(0)	0	(0)	1	(4)	2	(9)
uitary	enlarged		1	(4)	1	(4)	3	(12)	3	(13)

GROSS FINDINGS (SUMMARY) SACRIFICED ANIMALS (105W)

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ANIMAL : MOUSE BDF1 REPORT TYPE : A1

: FEMALE SEX

STUDY NO. : 0163

0rgan	Findings	Group Name NO. of Animals	26	Control (%)	27	400 ppm (%)	25	2000 ppm (%)	23	10000 maga (%)
pituitary	red zone		1	(4)	1	(4)		(0)	0	()
, ,	nadule							(0)		(0)
				(4)		(0)		(4)		(13)
	Mass			(0)	1	(4)	0	(0)	0	(0)
thyroid	enlarged		0	(0)	0	(0)	1	(4)	0	(0)
ovary	enlarged		0	(0)	1	(4)	0	(0)	3	(13)
	nadule		0	(0)	0	(0)	1	(4)	1	(4)
	cyst		9	(35)	6	(22)	4	(16)	1	(4)
	deformed		0	(0)	0	(0)	1	(4)	0	(0)
uterus	nadule		2	(8)	2	(7)	0	(0)	5	(22)
vagina	nodule .		0	(0)	0	(0)	1	(4)	0	(0)
llarder gl	enlarged		0	(0)	0	(0)	0	(0)	1	(4)
	nodule		0	(0)	3	(11)	1	(4)	0	(0)
bane	nadule		0	(0)	1	(4)	0	(0)	0	(0)
mediastinum	nodule		0	(0)	2	(7)	0	(0)	0	(0)
retroperit	cyst		0	(0)	0	(0)	1	(4)	0	(0)
abdominal c	ascites		1	(4)	2	(7)	4	(16)	1	(4)
adipose	nadule		0	(0)	1	(4)	0	(0)	0	(0)
thoracic ca	pleural fluid		1	(4)	3	(11)	1	(4)	0	(0)
other	upper jaw:nodule		0	(0)	0	(0)	0	(0)	1	(4)
	lower jaw:nodule		0	(0)	0	(0)	0	(0)	2	(9)

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PAGE: 5

APPENDIX K 2

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : FEMALE

(2-YEAR STUDY)

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : FEMALE UNIT: %

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

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Group Name NO. of Body Weight ADRENALS OVARIES HEART LUNGS KIDNEYS Animals (g) Control 41 299± 40 0.029 ± 0.007 0.064 ± 0.084 0.326 ± 0.061 0.381 ± 0.078 0.683 ± 0.120 400 ppm 40 298± 37 0.028 ± 0.007 0.053 ± 0.044 0.320 ± 0.038 0.381 ± 0.093 0.671 ± 0.109

2000 ppm 41 300± 34 0.027 ± 0.007 0.048 ± 0.024 0.323 ± 0.045 0.363 ± 0.041 0.669± 0.104 10000 ppm 37 284± 50 0.301 ± 1.564 0.055 ± 0.060 0.335 ± 0.070 0.387 ± 0.124 0.736± 0.155 Significant difference ; $*: P \leq 0.05$ ** : P ≦ 0.01 Test of Dunnett (IICL042)

BAIS 2

PAGE : 3

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : FEMALE UNIT: %

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

PAGE: 4 Group Name NO. of SPLEEN LIVER BRAIN Animals Contral 41 0.528 ± 1.237 2.736 ± 0.559 0.637 ± 0.090 400 ppm 40 0.211 ± 0.079 2.562 ± 0.303 0.633 ± 0.080 2000 ppm 41 0.257 ± 0.221 2.581 ± 0.376 0.632 ± 0.077 10000 ppm 37 0.246± 0.183 $2,699 \pm 0.583$ 0.670± 0.095 Significant difference ; ∗ : P ≦ 0.05 ** : P ≦ 0.01 Test of Dunnett (IICI.042)

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BAIS 2

APPENDIX K 3

ORGAN WEIGHT, RELATIVE : SUMMARY, MOSUE : MALE

(2-YEAR STUDY)

STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : MALE UNIT: %

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

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oup Name	NO. of Animals	Bady Weight (g)	ADRENALS	TESTES	IIEART	LUNGS	KIDNEYS	
Control	35	47.5± 5.7	0.035± 0.011	0.459± 0.069	0.473± 0.074	0.506± 0.121	1.394± 0.231	
400 ppm	42	44.8± 7.4	0.037± 0.012	0.487± 0.095	0.518± 0.096	0.537 ± 0.185	1.532± 0.354	
2000 mag	38	46.4± 6.9	0.115± 0.498	0.490± 0.096	0.499± 0.090	0.509± 0.125	1.511± 0.302	
10000 ppm	33	33.2± 6.7**	0.042 ± 0.014	0.669± 0.150**	0.582± 0.077**	0.664± 0.220**	1.739± 0.166**	

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BAIS 2

PAGE : 1

STUDY NO. : 0163 ANIMAL : MOUS REPORT TYPE : AN	SE BDF1			EIGHT:RELATIVE (SUMMARY) L ANIMALS (105)		
SEX : MALE UNIT: %						PAGE : 2
Group Name	NO. of Animals	SPLEEN	LIVER	BRAIN		
Control	35	0.228± 0.216	3.745± 1.671	0.963± 0.143		
100 maga	42	0.322± 0.441	4.374± 3.509	1.033± 0.195		
2000 mag	38	0.305± 0.396	4.209± 1.797	0.992± 0.168		
10000 ppm	33	0.275± 0.369	4.253± 1.622**	1.385± 0.266**		
Significant	difference;	*:P≦ 0.05 **:	$P \leq 0.01$	Test of Dunnett	 	
(IICL042)					 	BAIS 2

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APPENDIX K 1

ORGAN WEIGHT, RELATIVE : SUMMARY, RAT : MALE

(2-YEAR STUDY)

STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : MALE UNIT: %

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

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oup Name	NO. of Animals	Body Weight (g)	ADRENALS	TESTES	HEART	LUNGS	KIDNEYS	
Control	44	424± 53	0.022± 0.006	0.894± 0.355	0.295± 0.043	0.358± 0.086	0.717± 0.184	
400 ppm	40	424± 44	0.021± 0.004	0.860± 0.287	0.300± 0.036	0.359± 0.058	0.760± 0.166	
2000 ppm	36	433± 40	0.020± 0.004	0.806± 0.302	0.295± 0.041	0.362± 0.095	0.680± 0.103	
10000 ppm	39	397± 34**	0.022± 0.005	0.944± 0.324	0.302 ± 0.032	0.366± 0.066	0.693± 0.071	

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STUDY NO. : 0162 ANIMAL : RAT F344 REPORT TYPE : A1 SEX : MALE UNIT: %

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

PAGE : 2

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oup Name	NO. of Animals	SPLEEN	LIVER	BRAIN		
Control	44	0.272± 0.087	3.033± 0.444	0.486± 0.057		
400 mag	40	0.308± 0.224	3.225± 0.627	0.486± 0.057		
2000 ppm	36	$0.340\pm$ 0.305	2.955± 0.470	0.470± 0.051		
10000 ppm	39	0.288± 0.145	2.896 ± 0.404	0.512± 0.047		
Significant	difference ;	*:P≦0.05 **:	P ≤ 0.01	Test of Dunnett		
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APPENDIX K 4

ORGAN WEIGHT, RELATIVE : SUMMARY, MOSUE : FEMALE (2-YEAR STUDY)

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

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STUDY NO. : 0163 ANIMAL : MOUSE BDF1 REPORT TYPE : A1 SEX : FEMALE UNIT: %

PAGE : 3

oup Name	NO. of Animals	Body Weight (g)	ADRENALS	OVARIES	HEART	LUNGS	KIDNEYS
Control	26	31.9± 4.3	0.049± 0.012	0.312± 0.470	0.561± 0.115	0.652± 0.120	1.428± 0.267
400 ppm	27	32.1± 3.4	0.055± 0.014	0.279± 0.530	0.573± 0.109	0.695± 0.173	1.424± 0.231
2000 ppm	25	33.3± 5.8	0.051± 0.018	0.189± 0.141	0.549± 0.134	0.695± 0.225	1.427± 0.307
10000 ppm	23	26.2± 4.3**	0.055 ± 0.013	0.510± 1.375	0.627± 0.097	0.865± 0.337**	1.806± 0.441**

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BAIS 2

UDY NO. : 0163 HIMAL : MOUS PORT TYPE : A1 EX : FEMALE HT: %	SE BDF1			WEIGHT:RELATIVE (SUMMARY) AL ANIMALS (105)		PAGE : 4
oup Name	NO. of Animals	SPLEEN	LIVER	BRAIN		
Control	26	0.608± 1.064	4.535± 1.028	1.534± 0.259		
400 ppm	27	0.747± 1.019	4.780± 1.390	1.489± 0.172		
2000 ppm	25	0.799± 1.459	4.641± 1.077	1.466± 0.248		
10000 ppm	23	0.549± 0.441	4.799± 0.876	1.888± 0.509**		
Significant	difference ;	*:P≦0.05 **:	P ≦ 0.01	Test of Dunnett	·····	
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