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

試験番号

がん原性：ラット/0162；マウス/0163

TABLES

TABLES

T A B L E S (CONTINUED)

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TABLE 1 EXPERIMENTAL DESIGN AND MATERIALS AND METHODS IN THE DRINKING WATER STUDIES OF VINYL ACETATE

Two-year studies

<Method of Administration>
Drinking water
<Number of Groups>
Male 4, Female 4
<Size of Groups>
50 males and 50 females of each group
<Animals>
Strain and Species
F344/DuCrj(Fischer) rat
Crj:BDF1 mouse
Animal Source
Charles River Japan, Inc.
Duration Held Before Study
2 wk
Age When Placed on Study
6 wk
Age When Killed
110～111 wk
<Doses>
Rat-------<Male> 0, 400, 2000 or 10000 ppm
<Female> 0, 400, 2000 or 10000 ppm
Mouse---<Male> 0, 400, 2000 or 10000 ppm
<Female> 0, 400, 2000 or 10000 ppm
<Duration of Dosing>
7d/wk for 104wk
<Animal Maintenance>
Feed
CRF-1 (Oriental Yeast Co., Ltd.)
Sterilized by γ -ray
Available *ad libitum*
Water
Filtrated and sterilized by ultraviolet ray
Automatic watering system in duration of quarantine
Glass bottle in duration of acclimation and administration
Available *ad libitum*
Animal per Cage
Single (stainless steel wire)
Animal Room Environment
Barrier system
Temperature : 24±2℃
Humidity : 55±10%
Fluorescent light 12h/d
15-17 room air changes /h
<Type and Frequency of Observation>
Clinical Sign
Observed 1 per d
Body Weight
Weighed 1 per wk for 14wk
Weighed 1 per 2wks thereafter
Food Consumpltion
Weighed 1 per wk for 14wk
Weighed 1 per 4wks thereafter
Water Consumption
Weighed 2 per wk for 14wk
Weighed 1 per 2wks thereafter

TABLE 1 EXPERIMENTAL DESIGN AND MATERIALS AND METHODS IN THE DRINKING WATER STUDIES OF VINYL ACETATE (Continued)

Two-year studies
<Hematology> Red blood cell (RBC), Hemoglobin, Hematocrit, Mean corpuscular volume (MCV), Mean corpuscular hemoglobin (MCH), Mean corpuscular hemoglobin concentration (MCHC), Platelet, White blood cell (WBC), Differential WBC. <Biochemistry> Total protein, Albumin, A/G ratio, T-bilirubin, Glucose, T-cholesterol, Triglyceride, Phospholipid <rat only>, Glutamic oxaloacetic transaminase (GOT), Glutamic pyruvic transaminase (GPT), Lactate dehydrogenase (LDH), Alkaline phosphatase (ALP), γ -Glutamyl transpeptidase (G-GTP) <rat only>, Creatine phosphokinase (CPK), Urea nitrogen, Creatinine <rat only>, Sodium, Potassium, Chloride, Calcium, Inorganic phosphorus. <Urinalysis> pH, Protein, Glucose, Ketone body Bilirubin <rat only>, Occult blood Urobilinogen. <Necropsy> Necropsy performed on all animals. <Organ weight> Organ weight measurement performed on scheduled sacrificed animals. The following organs were weighed: brain, lung, liver, spleen, heart, kidney, adrenal, testis, ovary. <Histopathologic Examination> Histopathologic examination performed on all animals. The following organs were examined: skin, nasal cavity, trachea, lung, bone marrow, lymph node, thymus, spleen, heart, tongue, salivary gland, esophagus, stomach, small intestine, large intestine, liver, pancreas, kidney, urinary bladder, pituitary, thyroid, adrenal, testis, epididymis, seminal vesicle, prostate, ovary, uterus, vagina, mammary gland, brain, spinal cord, peripheral nerve, eye, Harderian gland, muscle, bone.

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN MALE RATS

(TWO-YEAR STUDY)

Week on Study	Control Av.Wt.	Control No.of Surviv. <50>	400 ppm Av.Wt.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.Wt.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.Wt.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
0	133 (50)	50/50	133 (50)	100	50/50	133 (50)	100	50/50	133 (50)	100	50/50
1	160 (50)	50/50	159 (50)	99	50/50	160 (50)	100	50/50	157 (50)	98	50/50
2	186 (50)	50/50	185 (50)	99	50/50	185 (50)	99	50/50	181 (50)	97	50/50
3	207 (50)	50/50	206 (50)	100	50/50	207 (50)	100	50/50	202 (50)	98	50/50
4	221 (50)	50/50	219 (50)	99	50/50	221 (50)	100	50/50	215 (50)	97	50/50
5	233 (50)	50/50	229 (50)	98	50/50	234 (50)	100	50/50	226 (50)	97	50/50
6	248 (50)	50/50	245 (50)	99	50/50	250 (50)	101	50/50	242 (50)	98	50/50
7	259 (50)	50/50	256 (50)	99	50/50	261 (50)	101	50/50	253 (50)	98	50/50
8	267 (50)	50/50	265 (50)	99	50/50	270 (50)	101	50/50	262 (50)	98	50/50
9	276 (50)	50/50	277 (50)	100	50/50	281 (50)	102	50/50	272 (50)	99	50/50
10	284 (50)	50/50	285 (50)	100	50/50	289 (50)	102	50/50	281 (50)	99	50/50
11	293 (50)	50/50	296 (50)	101	50/50	299 (50)	102	50/50	289 (50)	99	50/50
12	301 (50)	50/50	304 (50)	101	50/50	308 (50)	102	50/50	295 (50)	98	50/50
13	303 (50)	50/50	306 (50)	101	50/50	310 (50)	102	50/50	294 (50)	97	50/50
14	307 (50)	50/50	310 (50)	101	50/50	313 (50)	102	50/50	299 (50)	97	50/50
16	323 (50)	50/50	324 (50)	100	50/50	328 (50)	102	50/50	313 (50)	97	50/50
18	333 (50)	50/50	336 (50)	101	50/50	339 (50)	102	50/50	325 (50)	98	50/50
20	346 (50)	50/50	347 (50)	100	50/50	351 (50)	101	50/50	337 (50)	97	50/50
22	357 (50)	50/50	359 (50)	101	50/50	362 (50)	101	50/50	348 (50)	97	50/50
24	367 (50)	50/50	370 (50)	101	50/50	373 (50)	102	50/50	359 (50)	98	50/50
26	376 (50)	50/50	378 (50)	101	50/50	382 (50)	102	50/50	365 (50)	97	50/50
28	382 (50)	50/50	385 (50)	101	50/50	390 (50)	102	50/50	372 (50)	97	50/50
30	392 (50)	50/50	391 (50)	100	50/50	398 (50)	102	50/50	380 (50)	97	50/50
32	401 (50)	50/50	403 (50)	100	50/50	408 (50)	102	50/50	388 (50)	97	50/50
34	403 (50)	50/50	406 (50)	101	50/50	410 (50)	102	50/50	388 (50)	96	50/50
36	414 (50)	50/50	415 (50)	100	50/50	420 (50)	101	50/50	398 (50)	96	50/50
38	416 (50)	50/50	418 (50)	100	50/50	423 (50)	102	50/50	401 (50)	96	50/50
40	421 (50)	50/50	424 (50)	101	50/50	429 (50)	102	50/50	406 (50)	96	50/50
42	425 (50)	50/50	429 (50)	101	50/50	434 (50)	102	50/50	412 (50)	97	50/50
44	432 (50)	50/50	435 (50)	101	50/50	439 (50)	102	50/50	417 (50)	97	50/50
46	439 (50)	50/50	444 (50)	101	50/50	447 (50)	102	50/50	422 (50)	96	50/50
48	441 (50)	50/50	445 (50)	101	50/50	449 (50)	102	50/50	425 (50)	96	50/50
50	443 (50)	50/50	447 (50)	101	50/50	452 (50)	102	50/50	426 (50)	96	50/50
52	448 (50)	50/50	449 (50)	100	50/50	453 (50)	101	50/50	427 (50)	95	50/50
54	451 (50)	50/50	456 (50)	101	50/50	460 (50)	102	50/50	434 (50)	96	50/50
56	451 (50)	50/50	454 (50)	101	50/50	460 (50)	102	50/50	433 (50)	96	50/50
58	453 (50)	50/50	457 (50)	101	50/50	463 (50)	102	50/50	437 (50)	96	50/50
60	458 (50)	50/50	463 (50)	101	50/50	469 (50)	102	50/50	441 (50)	96	50/50
62	461 (50)	50/50	467 (50)	101	50/50	473 (50)	103	50/50	445 (50)	97	50/50
64	468 (50)	50/50	474 (50)	101	50/50	477 (50)	102	50/50	450 (50)	96	50/50
66	472 (50)	50/50	476 (50)	101	50/50	479 (50)	101	49/50	452 (50)	96	50/50
68	474 (49)	49/50	478 (50)	101	50/50	480 (49)	101	49/50	453 (50)	96	50/50
70	478 (49)	49/50	481 (50)	101	50/50	485 (49)	101	49/50	455 (50)	95	50/50
72	481 (49)	49/50	484 (50)	101	50/50	487 (49)	101	49/50	457 (50)	95	50/50
74	482 (49)	49/50	486 (49)	101	49/50	489 (49)	101	49/50	458 (50)	95	50/50
76	483 (49)	49/50	489 (48)	101	48/50	490 (49)	101	49/50	459 (50)	95	50/50
78	484 (49)	49/50	491 (48)	101	48/50	489 (49)	101	49/50	459 (50)	95	50/50
80	483 (49)	49/50	488 (48)	101	48/50	486 (49)	101	49/50	457 (50)	95	50/50
82	481 (48)	48/50	487 (48)	101	48/50	480 (49)	100	49/50	455 (50)	95	50/50
84	479 (48)	48/50	483 (48)	101	48/50	478 (47)	100	47/50	452 (49)	94	49/50
86	475 (48)	48/50	476 (48)	100	48/50	468 (47)	99	47/50	447 (49)	94	49/50
88	471 (48)	47/50	474 (47)	101	47/50	467 (45)	99	45/50	444 (49)	94	49/50
90	472 (47)	47/50	472 (46)	100	46/50	463 (44)	98	43/50	438 (48)	93	48/50
92	471 (47)	47/50	471 (46)	100	46/50	463 (42)	98	42/50	439 (48)	93	48/50
94	469 (47)	47/50	470 (45)	100	45/50	460 (41)	98	41/50	430 (47)	92	47/50
96	467 (47)	47/50	468 (45)	100	45/50	459 (40)	98	40/50	432 (45)	93	45/50
98	463 (46)	46/50	465 (43)	100	43/50	455 (40)	98	39/50	432 (44)	93	43/50
100	460 (45)	45/50	461 (42)	100	42/50	465 (37)	101	37/50	432 (42)	94	41/50
102	459 (44)	44/50	461 (41)	100	41/50	462 (37)	101	37/50	430 (41)	94	41/50
104	453 (44)	44/50	453 (40)	100	40/50	459 (36)	101	36/50	420 (39)	93	39/50

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

TABLE 3 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN FEMALE RATS

(TWO-YEAR STUDY)

Week on Study	Control Av.Wt.	Control No.of Surviv. <50>	400 ppm Av.Wt.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.Wt.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.Wt.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
0	108 (50)	50/50	108 (50)	100	50/50	108 (50)	100	50/50	108 (50)	100	50/50
1	122 (50)	50/50	121 (50)	99	50/50	121 (50)	99	50/50	119 (50)	98	50/50
2	135 (50)	50/50	134 (50)	99	50/50	134 (50)	99	50/50	132 (50)	98	50/50
3	146 (50)	50/50	146 (50)	100	50/50	145 (50)	99	50/50	143 (50)	98	50/50
4	154 (50)	50/50	154 (50)	100	50/50	154 (50)	100	50/50	152 (50)	99	50/50
5	165 (50)	50/50	165 (50)	100	50/50	166 (50)	101	50/50	162 (50)	98	50/50
6	167 (50)	50/50	168 (50)	101	50/50	169 (50)	101	50/50	167 (50)	100	50/50
7	175 (50)	50/50	176 (50)	101	50/50	176 (50)	101	50/50	172 (50)	98	50/50
8	178 (50)	50/50	177 (50)	99	50/50	175 (50)	98	50/50	175 (50)	98	50/50
9	185 (50)	50/50	182 (50)	98	50/50	179 (50)	97	50/50	181 (50)	98	50/50
10	188 (50)	50/50	184 (50)	98	50/50	181 (50)	96	50/50	183 (50)	97	50/50
11	192 (50)	50/50	186 (50)	97	50/50	183 (50)	95	50/50	186 (50)	97	50/50
12	192 (50)	50/50	187 (50)	97	50/50	184 (50)	96	50/50	187 (50)	97	50/50
13	193 (50)	50/50	187 (50)	97	50/50	184 (50)	95	50/50	188 (50)	97	50/50
14	194 (50)	50/50	188 (50)	97	50/50	185 (50)	95	50/50	189 (50)	97	50/50
16	204 (50)	50/50	199 (50)	98	50/50	197 (50)	97	50/50	197 (50)	97	50/50
18	207 (50)	50/50	204 (50)	99	50/50	203 (50)	98	50/50	201 (50)	97	50/50
20	209 (50)	50/50	207 (50)	99	50/50	205 (50)	98	50/50	203 (50)	97	50/50
22	208 (50)	50/50	208 (50)	100	50/50	208 (50)	100	50/50	203 (50)	98	50/50
24	210 (50)	50/50	212 (50)	101	50/50	211 (50)	100	50/50	206 (50)	98	50/50
26	215 (50)	50/50	216 (50)	100	50/50	215 (50)	100	50/50	210 (50)	98	50/50
28	218 (50)	50/50	220 (50)	101	50/50	218 (50)	100	50/50	213 (50)	98	50/50
30	223 (50)	50/50	223 (50)	100	50/50	221 (50)	99	50/50	216 (50)	97	50/50
32	228 (50)	50/50	226 (50)	99	50/50	224 (50)	98	50/50	219 (50)	96	50/50
34	227 (50)	50/50	227 (50)	100	50/50	224 (50)	99	50/50	219 (50)	96	50/50
36	234 (50)	50/50	234 (50)	100	50/50	231 (50)	99	50/50	226 (50)	97	50/50
38	236 (50)	50/50	237 (50)	100	50/50	234 (50)	99	50/50	228 (50)	97	50/50
40	239 (50)	50/50	239 (50)	100	50/50	237 (50)	99	50/50	230 (50)	96	50/50
42	245 (50)	50/50	244 (50)	100	50/50	241 (50)	98	50/50	234 (50)	96	50/50
44	248 (50)	50/50	249 (50)	100	50/50	245 (50)	99	50/50	239 (50)	96	50/50
46	250 (50)	50/50	252 (50)	101	50/50	249 (50)	100	50/50	242 (50)	97	50/50
48	253 (50)	50/50	255 (50)	101	50/50	252 (50)	100	50/50	244 (50)	96	50/50
50	257 (49)	49/50	258 (50)	100	50/50	255 (50)	99	50/50	245 (50)	95	50/50
52	260 (49)	49/50	259 (50)	100	50/50	252 (50)	97	50/50	246 (50)	95	50/50
54	265 (49)	49/50	264 (50)	100	50/50	260 (50)	98	50/50	251 (50)	95	50/50
56	266 (49)	49/50	268 (50)	101	50/50	263 (50)	99	50/50	252 (50)	95	50/50
58	269 (49)	49/50	272 (50)	101	50/50	266 (50)	99	50/50	255 (50)	95	50/50
60	274 (49)	49/50	277 (50)	101	50/50	271 (50)	99	50/50	259 (50)	95	50/50
62	279 (49)	49/50	281 (50)	101	50/50	274 (50)	98	50/50	262 (49)	94	49/50
64	280 (49)	49/50	281 (50)	100	50/50	275 (50)	98	50/50	262 (49)	94	49/50
66	284 (49)	49/50	285 (50)	100	50/50	278 (50)	98	50/50	267 (49)	94	49/50
68	289 (49)	49/50	290 (50)	100	50/50	282 (50)	98	50/50	270 (49)	93	49/50
70	293 (49)	49/50	294 (50)	100	50/50	286 (50)	98	50/50	272 (48)	93	48/50
72	297 (49)	49/50	296 (50)	100	50/50	290 (50)	98	50/50	273 (48)	92	48/50
74	298 (49)	49/50	298 (49)	100	49/50	290 (49)	97	49/50	273 (48)	92	48/50
76	304 (49)	49/50	304 (49)	100	49/50	297 (48)	98	48/50	279 (48)	92	48/50
78	308 (49)	49/50	310 (49)	101	49/50	301 (48)	98	48/50	284 (48)	92	48/50
80	311 (49)	49/50	312 (49)	100	49/50	303 (48)	97	48/50	282 (47)	91	47/50
82	314 (49)	49/50	314 (49)	100	49/50	305 (48)	97	48/50	284 (47)	90	47/50
84	312 (48)	48/50	317 (49)	102	49/50	309 (48)	99	48/50	285 (47)	91	47/50
86	313 (48)	48/50	324 (48)	104	48/50	312 (47)	100	47/50	287 (47)	92	47/50
88	317 (47)	47/50	315 (47)	99	47/50	312 (47)	98	47/50	287 (47)	91	46/50
90	315 (47)	47/50	311 (47)	99	47/50	313 (47)	99	47/50	289 (46)	92	46/50
92	322 (44)	44/50	318 (44)	99	44/50	316 (46)	98	46/50	291 (45)	90	45/50
94	320 (43)	43/50	318 (44)	99	44/50	317 (46)	99	46/50	295 (44)	92	44/50
96	321 (43)	43/50	319 (43)	99	43/50	317 (46)	99	46/50	292 (44)	91	43/50
98	320 (42)	42/50	318 (43)	99	42/50	315 (45)	98	45/50	295 (41)	92	41/50
100	322 (41)	41/50	320 (42)	99	42/50	320 (42)	99	42/50	293 (40)	91	39/50
102	320 (41)	41/50	318 (41)	99	41/50	319 (42)	100	42/50	297 (39)	93	39/50
104	319 (41)	41/50	319 (40)	100	40/50	320 (41)	100	41/50	301 (37)	94	37/50

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

TABLE 4 INCIDENCE OF EXTERNAL AND INTERNAL MASS IN CLINICAL OBSERVATION IN MALE RATS

Time of mass occurrence (week)	0~13	14~26	27~39	40~52	53~65	66~78	79~91	92~104	0~104
External mass (Includeing Mass[Oral cavity])									
Control	0/50	0/50	0/50	0/50	2/50	3/50	7/49	11/47	13/50 (2/ 6)
400 ppm	0/50	1/50	1/50	1/50	2/50	5/50	7/48	14/46	16/50 (4/10)
2000 ppm	0/50	0/50	0/50	0/50	0/50	4/49	10/49	21/42	23/50 (5/14)
10000 ppm	0/50	0/50	1/50	1/50	1/50	2/50	4/50	9/48	10/50 (2/11)
Mass [Oral cavity]									
Control	0/50	0/50	0/50	0/50	0/50	0/50	0/49	0/47	0/50 (0/ 6)
400 ppm	0/50	0/50	0/50	0/50	0/50	0/50	0/48	0/46	0/50 (0/10)
2000 ppm	0/50	0/50	0/50	0/50	0/50	0/49	0/49	0/42	0/50 (0/14)
10000 ppm	0/50	0/50	0/50	0/50	0/50	0/50	0/50	2/48	2/50 (0/11)
Internal mass									
Control	0/50	0/50	0/50	0/50	0/50	0/50	0/49	0/47	0/50 (0/ 6)
400 ppm	0/50	0/50	0/50	0/50	0/50	1/50	1/48	0/46	2/50 (1/10)
2000 ppm	0/50	0/50	0/50	0/50	0/50	0/49	1/49	2/42	3/50 (2/14)
10000 ppm	0/50	0/50	0/50	0/50	0/50	0/50	0/50	1/48	1/50 (1/11)

No. of animals with mass/No. of survival animals at first week on each period.
(No. of dead and moribund animals with mass/No. of dead and moribund animals.)

TABLE 5 INCIDENCE OF EXTERNAL AND INTERNAL MASS IN CLINICAL OBSERVATION IN FEMALE RATS

Time of mass occurrence (week)	0~13	14~26	27~39	40~52	53~65	66~78	79~91	92~104	0~104
External mass (Includeing Mass[Oral cavity])									
Control	0/50	1/50	1/50	1/50	1/49	3/49	6/49	10/44	11/50 (3/ 9)
400 ppm	0/50	0/50	0/50	0/50	1/50	2/50	6/49	8/44	9/50 (2/10)
2000 ppm	0/50	0/50	0/50	1/50	2/50	3/50	5/48	10/46	13/50 (3/ 9)
10000 ppm	0/50	0/50	0/50	0/50	2/50	3/49	4/48	9/45	11/50 (3/13)
Mass [Oral cavity]									
Control	0/50	0/50	0/50	0/50	0/49	0/49	0/49	0/44	0/50 (0/ 9)
400 ppm	0/50	0/50	0/50	0/50	0/50	0/50	1/49	1/44	1/50 (0/10)
2000 ppm	0/50	0/50	0/50	0/50	0/50	0/50	0/48	0/46	0/50 (0/ 9)
10000 ppm	0/50	0/50	0/50	0/50	0/50	0/49	0/48	1/45	1/50 (1/13)
Internal mass									
Control	0/50	0/50	0/50	0/50	0/49	0/49	1/49	2/44	3/50 (1/ 9)
400 ppm	0/50	0/50	0/50	0/50	0/50	0/50	1/49	0/44	1/50 (1/10)
2000 ppm	0/50	0/50	0/50	0/50	0/50	1/50	1/48	1/46	3/50 (3/ 9)
10000 ppm	0/50	0/50	0/50	0/50	0/50	0/49	0/48	6/45	6/50 (4/13)

No. of animals with mass/No. of survival animals at first week on each period.
(No. of dead and moribund animals with mass/No. of dead and moribund animals.)

TABLE 6 WATER CONSUMPTION IN MALE RATS (TWO-YEAR STUDY)

Week-Day on Study	Control Av.WC.	Control No.of Surviv. <50>	400 ppm Av.WC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.WC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.WC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1-3	18.8 (50)	50/50	18.2 (50)	97	50/50	17.9 (50)	95	50/50	14.7 (50)	78	50/50
1-7	18.9 (50)	50/50	19.4 (44)	103	50/50	18.1 (50)	96	50/50	14.9 (50)	79	50/50
2-3	19.8 (49)	50/50	20.9 (50)	106	50/50	19.4 (50)	98	50/50	16.1 (50)	81	50/50
2-7	20.3 (49)	50/50	20.9 (50)	103	50/50	20.4 (50)	100	50/50	16.0 (50)	79	50/50
3-3	19.9 (50)	50/50	20.2 (50)	102	50/50	19.5 (50)	98	50/50	15.7 (50)	79	50/50
3-7	19.7 (50)	50/50	19.7 (50)	100	50/50	19.2 (48)	97	50/50	15.5 (50)	79	50/50
4-3	18.7 (50)	50/50	18.5 (50)	99	50/50	18.1 (50)	97	50/50	15.2 (50)	81	50/50
4-7	17.4 (50)	50/50	17.4 (50)	100	50/50	16.9 (50)	97	50/50	14.4 (50)	83	50/50
5-3	17.0 (50)	50/50	16.6 (50)	98	50/50	16.4 (50)	96	50/50	14.2 (50)	84	50/50
5-7	17.6 (50)	50/50	16.8 (50)	95	50/50	17.0 (50)	97	50/50	15.0 (50)	85	50/50
6-3	16.8 (50)	50/50	16.8 (50)	100	50/50	16.4 (50)	98	50/50	14.5 (50)	86	50/50
6-7	22.2 (50)	50/50	22.1 (50)	100	50/50	21.6 (50)	97	50/50	18.7 (50)	84	50/50
7-3	20.5 (50)	50/50	20.6 (50)	100	50/50	20.0 (50)	98	50/50	17.3 (50)	84	50/50
7-7	20.5 (50)	50/50	20.3 (50)	99	50/50	19.5 (50)	95	50/50	15.2 (50)	79	50/50
8-3	20.3 (50)	50/50	20.2 (50)	100	50/50	19.6 (50)	97	50/50	15.9 (50)	78	50/50
8-7	20.7 (50)	50/50	20.9 (50)	101	50/50	19.8 (50)	96	50/50	15.9 (50)	77	50/50
9-3	20.2 (50)	50/50	20.4 (50)	101	50/50	19.3 (50)	96	50/50	15.4 (50)	76	50/50
9-7	19.7 (50)	50/50	19.9 (50)	101	50/50	19.5 (50)	99	50/50	15.7 (50)	80	50/50
10-3	19.2 (50)	50/50	19.4 (50)	101	50/50	18.8 (49)	98	50/50	15.0 (50)	78	50/50
10-7	20.2 (50)	50/50	20.7 (50)	102	50/50	19.8 (48)	98	50/50	16.1 (50)	80	50/50
11-3	19.0 (50)	50/50	19.4 (50)	102	50/50	18.8 (50)	99	50/50	15.1 (50)	79	50/50
11-7	17.7 (50)	50/50	18.2 (50)	103	50/50	17.5 (50)	99	50/50	14.6 (49)	82	50/50
12-3	16.8 (50)	50/50	17.4 (50)	104	50/50	17.3 (50)	103	50/50	14.4 (50)	86	50/50
12-7	15.5 (50)	50/50	15.7 (50)	101	50/50	15.8 (50)	102	50/50	13.4 (50)	86	50/50
13-3	15.6 (50)	50/50	15.8 (50)	101	50/50	15.7 (50)	101	50/50	13.1 (50)	84	50/50
13-7	15.8 (50)	50/50	15.9 (50)	101	50/50	16.0 (50)	101	50/50	13.3 (50)	84	50/50
14-3	16.9 (50)	50/50	16.9 (50)	100	50/50	16.8 (49)	99	50/50	14.2 (50)	84	50/50
14-7	16.4 (50)	50/50	16.6 (50)	101	50/50	16.5 (50)	101	50/50	13.7 (50)	84	50/50
16-7	18.9 (50)	50/50	18.8 (50)	99	50/50	18.3 (50)	97	50/50	14.9 (50)	79	50/50
18-7	17.6 (50)	50/50	17.8 (50)	101	50/50	17.6 (50)	100	50/50	14.8 (50)	84	50/50
20-7	17.6 (50)	50/50	17.8 (50)	101	50/50	17.7 (50)	101	50/50	14.7 (50)	84	50/50
22-7	18.3 (50)	50/50	18.7 (50)	102	50/50	18.1 (50)	99	50/50	15.0 (50)	82	50/50
24-7	18.1 (50)	50/50	18.4 (50)	102	50/50	18.3 (50)	101	50/50	15.2 (50)	84	50/50
26-7	18.7 (50)	50/50	18.7 (50)	100	50/50	18.5 (50)	99	50/50	15.4 (50)	82	50/50
28-7	18.5 (50)	50/50	18.6 (50)	101	50/50	18.6 (50)	101	50/50	15.6 (50)	84	50/50
30-7	18.3 (50)	50/50	19.0 (50)	104	50/50	18.3 (50)	100	50/50	15.5 (50)	85	50/50
32-7	18.3 (50)	50/50	18.9 (50)	103	50/50	18.2 (50)	99	50/50	15.4 (50)	84	50/50
34-7	17.4 (50)	50/50	18.4 (50)	106	50/50	17.2 (50)	99	50/50	14.6 (50)	84	50/50
36-7	19.7 (50)	50/50	19.8 (50)	101	50/50	18.8 (50)	95	50/50	16.4 (50)	83	50/50
38-7	18.9 (50)	50/50	19.7 (50)	104	50/50	18.9 (50)	100	50/50	17.1 (50)	90	50/50
40-7	19.4 (50)	50/50	19.4 (50)	100	50/50	18.8 (50)	97	50/50	16.7 (50)	86	50/50
42-7	18.8 (50)	50/50	19.7 (49)	105	50/50	19.2 (50)	102	50/50	16.8 (50)	89	50/50
44-7	17.0 (50)	50/50	17.3 (50)	102	50/50	16.5 (50)	97	50/50	15.2 (50)	89	50/50
46-7	19.4 (50)	50/50	20.0 (50)	103	50/50	19.1 (50)	98	50/50	17.1 (50)	88	50/50
48-7	18.6 (50)	50/50	19.0 (50)	102	50/50	18.0 (50)	97	50/50	16.2 (50)	87	50/50
50-7	19.0 (50)	50/50	20.0 (50)	105	50/50	19.0 (50)	100	50/50	17.1 (50)	90	50/50
52-7	18.5 (50)	50/50	18.5 (50)	100	50/50	17.9 (50)	97	50/50	16.6 (50)	90	50/50
54-7	19.3 (50)	50/50	19.6 (50)	102	50/50	19.1 (50)	99	50/50	17.1 (50)	89	50/50
56-7	18.5 (50)	50/50	18.3 (50)	99	50/50	18.2 (50)	98	50/50	16.4 (50)	89	50/50
58-7	19.3 (50)	50/50	19.6 (50)	102	50/50	19.0 (50)	98	50/50	17.0 (50)	88	50/50
60-7	20.0 (50)	50/50	19.5 (50)	98	50/50	19.3 (50)	97	50/50	17.0 (50)	85	50/50
62-7	20.3 (50)	50/50	20.1 (49)	99	50/50	19.3 (50)	95	50/50	17.5 (50)	86	50/50
64-7	19.5 (50)	50/50	19.3 (50)	99	50/50	18.2 (50)	93	50/50	16.7 (50)	86	50/50
66-7	20.8 (50)	50/50	20.3 (50)	98	50/50	19.5 (50)	94	49/50	17.5 (50)	84	50/50
68-7	20.7 (49)	49/50	20.6 (50)	100	50/50	19.5 (49)	94	49/50	17.5 (50)	85	50/50
70-7	21.1 (49)	49/50	20.2 (50)	96	50/50	19.7 (49)	93	49/50	17.3 (50)	82	50/50
72-7	20.9 (49)	49/50	20.7 (50)	99	50/50	20.0 (49)	96	49/50	17.9 (50)	86	50/50
74-7	21.5 (49)	49/50	21.4 (49)	100	49/50	20.5 (49)	95	49/50	18.7 (50)	87	50/50
76-7	21.8 (49)	49/50	21.7 (48)	100	48/50	20.3 (49)	93	49/50	19.8 (50)	91	50/50
78-7	21.7 (49)	49/50	21.6 (48)	100	48/50	20.2 (49)	93	49/50	18.1 (50)	83	50/50
80-7	22.2 (49)	49/50	22.4 (48)	101	48/50	21.7 (49)	98	49/50	18.4 (50)	83	50/50
82-7	22.5 (48)	48/50	22.7 (48)	101	48/50	20.8 (49)	92	49/50	18.1 (50)	80	50/50
84-7	22.2 (48)	48/50	22.1 (48)	100	48/50	20.0 (47)	90	47/50	17.8 (49)	80	49/50
86-7	23.7 (48)	48/50	23.7 (48)	100	48/50	20.8 (47)	88	47/50	18.5 (49)	78	49/50
88-7	23.9 (48)	47/50	24.4 (47)	102	47/50	22.1 (44)	92	45/50	18.6 (49)	78	49/50
90-7	25.7 (47)	47/50	25.9 (46)	101	46/50	22.2 (44)	86	43/50	19.5 (48)	76	48/50
92-7	25.8 (46)	47/50	26.3 (46)	102	46/50	22.5 (42)	87	42/50	19.8 (48)	77	48/50
94-7	25.6 (44)	47/50	26.8 (45)	105	45/50	23.2 (40)	91	41/50	19.2 (47)	75	47/50
96-7	25.6 (44)	47/50	26.1 (45)	102	45/50	23.2 (39)	91	40/50	18.8 (45)	73	45/50
98-7	25.5 (42)	46/50	26.8 (42)	105	43/50	23.7 (39)	93	39/50	19.1 (44)	75	43/50
100-7	26.1 (42)	45/50	26.4 (40)	101	42/50	23.7 (37)	91	37/50	19.4 (42)	74	41/50
102-7	25.4 (41)	44/50	27.5 (38)	108	41/50	24.4 (37)	96	37/50	19.3 (41)	76	41/50
104-7	25.7 (41)	44/50	27.7 (37)	108	40/50	24.5 (34)	95	36/50	19.3 (39)	75	39/50

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

TABLE 7 WATER CONSUMPTION IN FEMALE RATS (TWO-YEAR STUDY)

Week-Day on Study	Control Av.WC.	Control No.of Surviv. <50>	400 ppm Av.WC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.WC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.WC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1-3	16.9 (50)	50/50	17.1 (50)	101	50/50	14.7 (50)	87	50/50	12.0 (50)	71	50/50
1-7	17.9 (50)	50/50	18.2 (48)	102	50/50	16.0 (50)	89	50/50	12.6 (50)	70	50/50
2-3	18.5 (50)	50/50	17.6 (48)	95	50/50	16.0 (49)	86	50/50	12.5 (50)	68	50/50
2-7	18.9 (49)	50/50	19.4 (50)	103	50/50	17.2 (50)	91	50/50	13.0 (50)	69	50/50
3-3	17.7 (50)	50/50	19.1 (49)	108	50/50	16.4 (50)	93	50/50	12.8 (50)	72	50/50
3-7	18.3 (50)	50/50	20.2 (47)	110	50/50	17.0 (50)	93	50/50	13.2 (50)	72	50/50
4-3	19.2 (50)	50/50	21.2 (50)	110	50/50	17.4 (50)	91	50/50	13.1 (50)	68	50/50
4-7	19.4 (47)	50/50	19.9 (45)	103	50/50	18.5 (50)	95	50/50	13.7 (50)	71	50/50
5-3	18.9 (50)	50/50	20.5 (48)	108	50/50	18.0 (50)	95	50/50	13.4 (50)	71	50/50
5-7	19.6 (49)	50/50	23.4 (50)	119	50/50	18.9 (50)	96	50/50	13.7 (50)	70	50/50
6-3	18.2 (50)	50/50	20.6 (49)	113	50/50	17.6 (50)	97	50/50	12.8 (49)	70	50/50
6-7	20.6 (50)	50/50	23.3 (50)	113	50/50	19.0 (50)	92	50/50	13.3 (50)	65	50/50
7-3	18.2 (50)	50/50	22.6 (49)	124	50/50	18.5 (50)	102	50/50	12.6 (50)	69	50/50
7-7	17.4 (50)	50/50	17.4 (49)	100	50/50	16.2 (50)	93	50/50	12.6 (50)	72	50/50
8-3	16.6 (50)	50/50	15.8 (50)	95	50/50	14.8 (50)	89	50/50	11.5 (50)	69	50/50
8-7	16.9 (50)	50/50	16.8 (50)	99	50/50	15.1 (50)	89	50/50	11.8 (50)	70	50/50
9-3	16.2 (50)	50/50	15.9 (50)	98	50/50	14.4 (50)	89	50/50	11.5 (50)	71	50/50
9-7	17.0 (50)	50/50	16.4 (49)	96	50/50	14.5 (50)	85	50/50	12.2 (50)	72	50/50
10-3	16.7 (50)	50/50	15.1 (50)	90	50/50	13.7 (50)	82	50/50	11.9 (49)	71	50/50
10-7	18.0 (50)	50/50	17.4 (50)	97	50/50	15.0 (50)	83	50/50	12.6 (50)	70	50/50
11-3	14.2 (50)	50/50	13.4 (50)	94	50/50	13.4 (50)	94	50/50	10.5 (50)	74	50/50
11-7	13.8 (49)	50/50	13.5 (50)	98	50/50	12.7 (50)	92	50/50	10.6 (50)	77	50/50
12-3	14.0 (50)	50/50	13.2 (50)	94	50/50	13.0 (50)	93	50/50	11.2 (50)	80	50/50
12-7	12.6 (50)	50/50	12.7 (50)	101	50/50	12.3 (50)	98	50/50	9.7 (50)	77	50/50
13-3	13.3 (50)	50/50	13.1 (50)	98	50/50	12.7 (50)	95	50/50	10.5 (50)	79	50/50
13-7	12.9 (50)	50/50	12.6 (50)	98	50/50	12.5 (50)	97	50/50	10.2 (50)	79	50/50
14-3	13.2 (50)	50/50	12.9 (49)	98	50/50	12.6 (50)	95	50/50	10.7 (50)	81	50/50
14-7	13.1 (50)	50/50	14.1 (50)	108	50/50	12.0 (50)	92	50/50	10.4 (50)	79	50/50
16-7	19.2 (50)	50/50	21.4 (47)	111	50/50	18.1 (50)	94	50/50	12.9 (50)	67	50/50
18-7	17.2 (49)	50/50	21.2 (49)	123	50/50	18.2 (50)	106	50/50	12.4 (50)	72	50/50
20-7	15.9 (48)	50/50	20.3 (49)	128	50/50	17.4 (50)	109	50/50	11.5 (50)	72	50/50
22-7	16.7 (50)	50/50	21.0 (49)	126	50/50	18.0 (49)	108	50/50	11.5 (50)	69	50/50
24-7	17.8 (50)	50/50	21.5 (49)	121	50/50	18.1 (50)	102	50/50	11.6 (50)	65	50/50
26-7	17.1 (48)	50/50	20.6 (45)	120	50/50	18.3 (50)	107	50/50	11.7 (50)	68	50/50
28-7	17.6 (50)	50/50	19.1 (48)	109	50/50	16.9 (50)	96	50/50	12.3 (50)	70	50/50
30-7	17.3 (50)	50/50	18.6 (47)	108	50/50	18.1 (49)	105	50/50	12.1 (50)	70	50/50
32-7	19.0 (50)	50/50	20.2 (46)	106	50/50	17.4 (49)	92	50/50	12.1 (50)	64	50/50
34-7	15.3 (48)	50/50	16.9 (49)	110	50/50	16.1 (50)	105	50/50	11.2 (50)	73	50/50
36-7	19.9 (49)	50/50	21.6 (49)	109	50/50	19.9 (50)	100	50/50	13.0 (50)	65	50/50
38-7	17.7 (49)	50/50	19.3 (48)	109	50/50	17.8 (49)	101	50/50	12.9 (50)	73	50/50
40-7	18.6 (50)	50/50	20.4 (50)	110	50/50	18.5 (50)	99	50/50	13.8 (50)	74	50/50
42-7	18.9 (50)	50/50	19.6 (49)	104	50/50	18.3 (50)	97	50/50	13.0 (50)	69	50/50
44-7	16.8 (50)	50/50	17.0 (49)	101	50/50	16.7 (50)	99	50/50	12.9 (50)	77	50/50
46-7	17.7 (50)	50/50	19.1 (49)	108	50/50	17.7 (50)	100	50/50	12.9 (50)	73	50/50
48-7	17.2 (50)	50/50	19.5 (49)	113	50/50	17.7 (50)	103	50/50	13.3 (50)	77	50/50
50-7	17.2 (49)	49/50	17.6 (49)	102	50/50	17.9 (49)	104	50/50	13.3 (50)	77	50/50
52-7	14.8 (49)	49/50	15.1 (50)	102	50/50	13.7 (50)	93	50/50	12.3 (50)	83	50/50
54-7	17.0 (49)	49/50	18.5 (47)	109	50/50	17.6 (49)	104	50/50	13.7 (50)	81	50/50
56-7	16.7 (49)	49/50	17.6 (50)	105	50/50	16.9 (49)	101	50/50	13.5 (50)	81	50/50
58-7	17.5 (49)	49/50	17.8 (50)	102	50/50	17.8 (50)	102	50/50	13.6 (50)	78	50/50
60-7	16.5 (49)	49/50	17.1 (50)	104	50/50	17.7 (50)	107	50/50	13.8 (50)	84	50/50
62-7	17.2 (49)	49/50	18.2 (50)	106	50/50	17.2 (50)	100	50/50	13.8 (49)	80	49/50
64-7	15.5 (49)	49/50	16.3 (50)	105	50/50	16.1 (50)	104	50/50	13.1 (49)	85	49/50
66-7	17.7 (49)	49/50	18.3 (50)	103	50/50	18.5 (50)	105	50/50	14.3 (49)	81	49/50
68-7	18.4 (49)	49/50	19.3 (50)	105	50/50	19.4 (50)	105	50/50	15.0 (49)	82	49/50
70-7	16.5 (49)	49/50	17.3 (50)	105	50/50	17.4 (50)	105	50/50	13.4 (48)	81	48/50
72-7	15.5 (49)	49/50	15.9 (50)	103	50/50	16.9 (50)	109	50/50	12.9 (48)	83	48/50
74-7	18.5 (49)	49/50	19.0 (49)	103	49/50	19.4 (49)	105	49/50	14.8 (48)	80	48/50
76-7	19.4 (49)	49/50	19.2 (49)	99	49/50	19.3 (47)	99	48/50	15.7 (48)	81	48/50
78-7	18.7 (49)	49/50	18.5 (49)	99	49/50	18.8 (48)	101	48/50	15.6 (48)	83	48/50
80-7	18.7 (49)	49/50	17.7 (49)	95	49/50	18.5 (48)	99	48/50	15.1 (47)	81	47/50
82-7	20.0 (49)	49/50	18.3 (49)	92	49/50	18.8 (48)	94	48/50	15.3 (47)	77	47/50
84-7	18.0 (48)	48/50	17.2 (49)	96	49/50	18.0 (48)	100	48/50	14.5 (47)	81	47/50
86-7	19.3 (48)	48/50	19.5 (48)	101	48/50	19.4 (47)	101	47/50	15.6 (47)	81	47/50
88-7	20.2 (47)	47/50	19.4 (47)	96	47/50	20.3 (47)	100	47/50	16.1 (47)	80	46/50
90-7	19.4 (47)	47/50	18.2 (47)	94	47/50	19.9 (47)	103	47/50	16.2 (46)	84	46/50
92-7	19.6 (45)	44/50	19.5 (45)	99	44/50	20.2 (46)	103	46/50	16.2 (45)	83	45/50
94-7	20.9 (43)	43/50	19.5 (44)	93	44/50	20.4 (46)	98	46/50	16.5 (44)	79	44/50
96-7	21.4 (43)	43/50	20.0 (43)	93	43/50	20.1 (46)	94	46/50	15.9 (44)	74	43/50
98-7	20.1 (42)	42/50	19.2 (43)	96	42/50	19.8 (45)	99	45/50	16.2 (41)	81	41/50
100-7	22.2 (41)	41/50	20.0 (42)	90	42/50	20.4 (42)	92	42/50	16.9 (40)	76	39/50
102-7	22.7 (39)	41/50	21.8 (41)	96	41/50	20.5 (42)	90	42/50	17.0 (38)	75	39/50
104-7	22.6 (39)	41/50	20.8 (40)	92	40/50	21.1 (41)	93	41/50	16.5 (37)	73	37/50

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

TABLE 8 FOOD CONSUMPTION IN MALE RATS (TWO-YEAR STUDY)

Week on Study	Control Av.FC.	Control No.of Surviv. <50>	400 ppm Av.FC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.FC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.FC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1	15.0 (50)	50/50	14.9 (50)	99	50/50	14.7 (50)	98	50/50	14.0 (50)	93	50/50
2	16.1 (50)	50/50	16.2 (50)	101	50/50	15.6 (50)	97	50/50	15.5 (50)	96	50/50
3	15.9 (50)	50/50	16.0 (50)	101	50/50	15.8 (50)	99	50/50	15.2 (50)	96	50/50
4	15.6 (50)	50/50	15.3 (50)	98	50/50	15.2 (50)	97	50/50	15.0 (50)	96	50/50
5	15.1 (50)	50/50	14.8 (50)	98	50/50	15.0 (50)	99	50/50	14.9 (50)	99	50/50
6	16.4 (50)	50/50	16.3 (50)	99	50/50	16.3 (50)	99	50/50	15.7 (50)	96	50/50
7	15.6 (50)	50/50	15.7 (50)	101	50/50	15.6 (50)	100	50/50	15.2 (50)	97	50/50
8	15.1 (50)	50/50	14.9 (50)	99	50/50	15.3 (50)	101	50/50	14.7 (50)	97	50/50
9	15.5 (50)	50/50	15.6 (50)	101	50/50	15.7 (50)	101	50/50	15.1 (50)	97	50/50
10	15.5 (50)	50/50	15.7 (50)	101	50/50	15.7 (50)	101	50/50	14.9 (50)	96	50/50
11	15.3 (50)	50/50	15.5 (50)	101	50/50	15.4 (50)	101	50/50	14.8 (50)	97	50/50
12	14.1 (50)	50/50	14.5 (50)	103	50/50	14.3 (50)	101	50/50	13.7 (50)	97	50/50
13	14.2 (50)	50/50	14.6 (50)	103	50/50	14.4 (50)	101	50/50	13.6 (50)	96	50/50
14	14.7 (50)	50/50	15.1 (50)	103	50/50	14.7 (50)	100	50/50	14.3 (50)	97	50/50
18	14.4 (50)	50/50	14.9 (50)	103	50/50	14.7 (50)	102	50/50	14.2 (50)	99	50/50
22	15.6 (50)	50/50	15.8 (48)	101	50/50	15.3 (50)	98	50/50	15.0 (50)	96	50/50
26	16.1 (50)	50/50	16.2 (50)	101	50/50	16.1 (50)	100	50/50	15.6 (50)	97	50/50
30	16.2 (50)	50/50	16.4 (50)	101	50/50	16.3 (50)	101	50/50	16.0 (50)	99	50/50
34	16.4 (50)	50/50	17.0 (50)	104	50/50	16.7 (50)	102	50/50	15.8 (50)	96	50/50
38	16.4 (50)	50/50	16.9 (50)	103	50/50	16.4 (50)	100	50/50	16.2 (50)	99	50/50
42	16.8 (40)	50/50	17.1 (47)	102	50/50	16.8 (50)	100	50/50	16.7 (50)	99	50/50
46	17.2 (50)	50/50	17.4 (50)	101	50/50	17.0 (50)	99	50/50	16.7 (50)	97	50/50
50	16.9 (50)	50/50	17.2 (50)	102	50/50	17.0 (50)	101	50/50	16.4 (50)	97	50/50
54	17.4 (50)	50/50	17.7 (50)	102	50/50	17.5 (50)	101	50/50	17.4 (50)	100	50/50
58	17.0 (50)	50/50	17.1 (50)	101	50/50	16.9 (50)	99	50/50	16.8 (50)	99	50/50
62	17.0 (50)	50/50	17.2 (50)	101	50/50	16.9 (50)	99	50/50	16.9 (50)	99	50/50
66	17.4 (50)	50/50	17.2 (50)	99	50/50	16.6 (50)	95	49/50	16.7 (50)	96	50/50
70	17.7 (49)	49/50	17.7 (50)	100	50/50	17.3 (49)	98	49/50	16.9 (50)	95	50/50
74	18.1 (49)	49/50	18.3 (49)	101	49/50	18.0 (49)	99	49/50	17.6 (50)	97	50/50
78	17.8 (49)	49/50	18.4 (48)	103	48/50	17.8 (49)	100	49/50	17.6 (50)	99	50/50
82	17.7 (48)	48/50	18.1 (48)	102	48/50	17.1 (49)	97	49/50	17.2 (50)	97	50/50
86	17.8 (48)	48/50	18.0 (48)	101	48/50	16.9 (47)	95	47/50	17.2 (49)	97	49/50
90	18.0 (47)	47/50	18.3 (46)	102	46/50	17.2 (44)	96	43/50	16.9 (48)	94	48/50
94	17.7 (47)	47/50	18.2 (45)	103	45/50	17.3 (41)	98	41/50	16.5 (47)	93	47/50
98	16.5 (46)	46/50	17.1 (43)	104	43/50	16.5 (40)	100	39/50	15.4 (44)	93	43/50
102	16.5 (44)	44/50	16.9 (41)	102	41/50	16.0 (37)	97	37/50	15.7 (41)	95	41/50
104	16.5 (44)	44/50	16.9 (40)	102	40/50	16.3 (36)	99	36/50	15.5 (39)	94	39/50

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

(B10040)

TABLE 9 FOOD CONSUMPTION IN FEMALE RATS (TWO-YEAR STUDY)

Week on Study	Control Av.FC.	Control No.of Surviv. <50>	400 ppm Av.FC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.FC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.FC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1	12.1 (50)	50/50	12.1 (50)	100	50/50	11.8 (50)	98	50/50	11.3 (50)	93	50/50
2	12.4 (50)	50/50	12.5 (50)	101	50/50	12.2 (50)	98	50/50	12.0 (50)	97	50/50
3	12.6 (50)	50/50	12.6 (50)	100	50/50	12.4 (50)	98	50/50	12.0 (50)	95	50/50
4	12.3 (50)	50/50	12.4 (50)	101	50/50	12.4 (50)	101	50/50	12.0 (50)	98	50/50
5	12.5 (50)	50/50	12.6 (50)	101	50/50	12.5 (50)	100	50/50	12.0 (50)	96	50/50
6	11.9 (50)	50/50	12.1 (50)	102	50/50	12.1 (50)	102	50/50	11.7 (50)	98	50/50
7	11.9 (50)	50/50	11.7 (50)	98	50/50	11.5 (50)	97	50/50	11.2 (50)	94	50/50
8	11.5 (50)	50/50	11.2 (50)	97	50/50	10.9 (50)	95	50/50	10.8 (50)	94	50/50
9	11.8 (50)	50/50	11.3 (50)	96	50/50	10.8 (50)	92	50/50	11.1 (50)	94	50/50
10	11.8 (50)	50/50	11.3 (50)	96	50/50	10.9 (50)	92	50/50	11.1 (50)	94	50/50
11	11.1 (50)	50/50	10.7 (50)	96	50/50	10.4 (50)	94	50/50	10.4 (50)	94	50/50
12	10.5 (50)	50/50	10.1 (50)	96	50/50	9.9 (50)	94	50/50	10.2 (50)	97	50/50
13	10.1 (50)	50/50	9.8 (50)	97	50/50	9.7 (50)	96	50/50	9.9 (50)	98	50/50
14	10.2 (50)	50/50	9.7 (50)	95	50/50	9.6 (50)	94	50/50	9.6 (50)	94	50/50
18	11.2 (49)	50/50	11.3 (50)	101	50/50	11.4 (50)	102	50/50	10.8 (50)	96	50/50
22	10.8 (50)	50/50	11.1 (50)	103	50/50	11.1 (50)	103	50/50	10.7 (50)	99	50/50
26	11.4 (50)	50/50	11.6 (50)	102	50/50	11.3 (50)	99	50/50	11.0 (50)	96	50/50
30	11.7 (50)	50/50	11.7 (50)	100	50/50	11.8 (50)	101	50/50	11.1 (50)	95	50/50
34	11.6 (50)	50/50	11.7 (50)	101	50/50	11.5 (50)	99	50/50	11.1 (50)	96	50/50
38	12.2 (50)	50/50	12.5 (50)	102	50/50	12.3 (50)	101	50/50	11.8 (50)	97	50/50
42	12.7 (50)	50/50	12.5 (50)	98	50/50	12.3 (50)	97	50/50	11.8 (50)	93	50/50
46	11.8 (50)	50/50	12.2 (50)	103	50/50	12.1 (50)	103	50/50	11.6 (50)	98	50/50
50	12.4 (49)	49/50	12.3 (50)	99	50/50	12.3 (50)	99	50/50	11.6 (50)	94	50/50
54	13.0 (49)	49/50	12.9 (50)	99	50/50	13.4 (50)	103	50/50	12.6 (50)	97	50/50
58	12.7 (49)	49/50	13.0 (50)	102	50/50	12.7 (50)	100	50/50	12.2 (50)	96	50/50
62	12.7 (49)	49/50	12.5 (50)	98	50/50	12.6 (50)	99	50/50	12.0 (49)	94	49/50
66	12.8 (49)	49/50	12.6 (50)	98	50/50	12.6 (50)	98	50/50	12.2 (49)	95	49/50
70	13.1 (49)	49/50	13.0 (50)	99	50/50	12.9 (49)	98	50/50	12.1 (48)	92	48/50
74	14.0 (49)	49/50	13.9 (49)	99	49/50	13.9 (49)	99	49/50	13.1 (48)	94	48/50
78	13.9 (49)	49/50	13.9 (49)	100	49/50	13.7 (48)	99	48/50	13.2 (48)	95	48/50
82	13.5 (48)	49/50	13.3 (49)	99	49/50	13.5 (48)	100	48/50	12.8 (47)	95	47/50
86	13.6 (48)	48/50	13.7 (47)	101	48/50	13.6 (47)	100	47/50	12.8 (47)	94	47/50
90	12.7 (47)	47/50	12.3 (47)	97	47/50	13.3 (47)	105	47/50	12.5 (46)	98	46/50
94	13.7 (43)	43/50	13.2 (44)	96	44/50	13.5 (46)	99	46/50	12.6 (44)	92	44/50
98	13.1 (42)	42/50	13.0 (43)	99	42/50	12.9 (45)	98	45/50	12.0 (41)	92	41/50
102	13.8 (41)	41/50	13.5 (41)	98	41/50	13.3 (42)	96	42/50	12.7 (39)	92	39/50
104	13.9 (41)	41/50	13.2 (40)	95	40/50	13.5 (41)	97	41/50	12.8 (37)	92	37/50

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

(B10040)

TABLE 10 NEOPLASTIC LESIONS (ORAL CAVITY) INCIDENCE AND STATISTICAL ANALYSIS IN MALE RATS

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : oral cavity				
TUMOUR : squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	5/50 (10.0)
Adjusted Rates(b)	0.0	0.0	0.0	7.69
Terminal Rates(c)	0/44 (0.0)	0/40 (0.0)	0/36 (0.0)	3/39 (7.7)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.0161* ?			
Prevalence Method(d)	P=0.0019**?			
Combined analysis(d)	P=0.0001**?			
Cochran-Armitage Test(e)	P=0.0001**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0360*
SITE : oral cavity				
TUMOUR : squamous cell papilloma, squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	7/50 (14.0)
Adjusted Rates(b)	0.0	0.0	0.0	12.82
Terminal Rates(c)	0/44 (0.0)	0/40 (0.0)	0/36 (0.0)	5/39 (12.8)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.0161* ?			
Prevalence Method(d)	P<0.0001**?			
Combined analysis(d)	P<0.0001**?			
Cochran-Armitage Test(e)	P<0.0001**?			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0101*

TABLE 11 NEOPLASTIC LESIONS (ORAL CAVITY) INCIDENCE AND STATISTICAL ANALYSIS IN FEMALE RATS

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : oral cavity				
TUMOUR : squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	1/50 (2.0)	1/50 (2.0)	3/50 (6.0)
Adjusted Rates(b)	0.0	2.50	2.44	8.11
Terminal Rates(c)	0/41 (0.0)	1/40 (2.5)	1/41 (2.4)	3/37 (8.1)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=------			
Prevalence Method(d)	P=0.0342*			
Combined analysis(d)	P=------			
Cochran-Armitage Test(e)	P=0.0590			
Fisher Exact Test(e)		P=0.4950	P=0.4950	P=0.1325

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

TABLE 12 NEOPLASTIC LESIONS (TESTIS) INCIDENCE AND STATISTICAL ANALYSIS IN MALE RATS

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : testis				
TUMOUR : interstitial cell tumor				
Tumor Rates				
Overall Rates(a)	42/50 (84.0)	40/50 (80.0)	44/50 (88.0)	47/50 (94.0)
Adjusted Rates(b)	88.89	86.05	94.59	100.00
Terminal Rates(c)	39/44 (88.6)	34/40 (85.0)	34/36 (94.4)	39/39(100.0)
Statistical Analysis				
Peto Test				
Standard metod(d)	P=------			
Prevalence method(d)	P=0.0188*			
Combined analysis(d)	P=------			
Cochran-Armitage Test(e)	P=0.0543			
Fisher Exact Test(e)		P=0.4942	P=0.4956	P=0.4053

TABLE 13 NEOPLASTIC LESIONS (MAMMARY GLAND) INCIDENCE AND STATISTICAL ANALYSIS IN FEMALE RATS

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : mammary gland				
TUMOUR : adenocarcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	3/50 (6.0)
Adjusted Rates(b)	0.0	0.0	0.0	5.41
Terminal Rates(c)	0/41 (0.0)	0/40 (0.0)	0/41 (0.0)	2/37 (5.4)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.1723			
Prevalence Method(d)	P=0.0117* ?			
Combined analysis(d)	P=0.0017**?			
Cochran-Armitage Test(e)	P=0.0030**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.1325

TABLE 14 NEOPLASTIC LESIONS (THYROID) INCIDENCE AND STATISTICAL ANALYSIS IN FEMALE RATS

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : thyroid				
TUMOUR : C-cell adenoma, C-cell carcinoma				
Tumor Rates				
Overall Rates(a)	2/50 (4.0)	7/50 (14.0)	9/50 (18.0)	6/50 (12.0)
Adjusted Rates(b)	4.88	15.00	20.45	15.38
Terminal Rates(c)	2/41 (4.9)	6/40 (15.0)	8/41 (19.5)	5/37 (13.5)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=------			
Prevalence Method(d)	P=0.3422			
Combined analysis(d)	P=------			
Cochran-Armitage Test(e)	P=0.7312			
Fisher Exact Test(e)		P=0.1045	P=0.0427*	P=0.1606

(a):Number of tumor-bearing animals/number of animals examined at the site.
(b):Kaplan-Meire estimate tumor incidence at the end of study after adjusting for intercurrent mortality.
(c):Observed tumor incidence at terminal kill.
(d):Beneth 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 ; * : $P \leqq 0.05$ ** : $P \leqq 0.01$

Table 15 SELECTED LESIONS OF DIGESTIVE SYSTEM IN MALE RATS

	neoplastic disease								non neoplastic disease											
	squamous cell papilloma				squamous cell carcinoma				squamous cell hyperplasia				basal cell activation				epithlial dysprasia			
Group(ppm)	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000
Number of examined	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
oral cavity	0	0	0	2	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	0
esophagus	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
stomach	1	0	0	0	0	0	0	0	2	0	1	0	0	0	0	2	0	0	0	0

Table 16 SELECTED LESIONS OF DIGESTIVE SYSTEM IN FEMALE RATS

	neoplastic disease								non neoplastic disease											
	squamous cell papilloma				squamous cell carcinoma				squamous cell hyperplasia				basal cell activation				epithlial dysprasia			
Group(ppm)	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000
Number of examined	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
oral cavity	0	0	0	0	0	1	1	3	0	0	0	0	0	0	0	1	0	0	0	2
esophagus	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0	0
stomach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0

TABLE 17 CAUSE OF DEATH IN RATS

	Male				Female			
Group	Control	400ppm	2000ppm	10000ppm	Control	400ppm	2000ppm	10000ppm
Number of dead/moribund animal	6	10	14	11	9	10	9	13
No microscopical confirmation	0	0	0	0	0	0	0	1
Cardiovascular lesion	0	0	0	1	0	0	0	0
Chronic nephropathy	1	1	0	0	0	0	0	0
Tumor death : leukemia	1	3	3	3	2	2	3	4
: skin/appendage	0	1	0	0	0	0	0	0
: subcutis	1	2	2	2	2	0	0	0
: larynx	1	0	0	1	1	1	0	0
: bone marrow	0	0	0	0	0	0	1	0
: spleen	0	0	0	1	0	0	0	0
: oral cavity	0	0	0	1	0	0	0	0
: liver	0	0	2	0	0	1	0	1
: pituitary gland	2	3	3	1	1	6	1	3
: uterus	-	-	-	-	2	0	2	1
: mammary gland	0	0	0	0	1	0	0	2
: prep./cli. gland	0	0	0	0	0	0	2	0
: brain	0	0	1	1	0	0	0	0
: Zymbal gland	0	0	1	0	0	0	0	0
: bone	0	0	1	0	0	0	0	0
: vertebra	0	0	1	0	0	0	0	0
: retroperitoneum	0	0	0	0	0	0	0	1

TABLE 18 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN MALE MICE

(TWO-YEAR STUDY)

Week on Study	Control		400 ppm			2000 ppm			10000 ppm		
	Av.Wt.	No.of Surviv. <50>	Av.Wt.	% of cont. <50>	No.of Surviv.	Av.Wt.	% of cont. <50>	No.of Surviv.	Av.Wt.	% of cont. <50>	No.of Surviv.
0	23.0 (50)	50/50	23.0 (50)	100	50/50	23.0 (50)	100	50/50	23.0 (50)	100	50/50
1	24.4 (50)	50/50	24.0 (50)	98	50/50	24.2 (50)	99	50/50	23.8 (50)	98	50/50
2	25.6 (50)	50/50	25.0 (50)	98	50/50	25.3 (50)	99	50/50	25.0 (50)	98	50/50
3	27.7 (50)	50/50	27.5 (50)	99	50/50	27.6 (50)	100	50/50	26.9 (50)	97	50/50
4	27.5 (50)	50/50	27.4 (50)	100	50/50	27.4 (50)	100	50/50	27.1 (50)	99	50/50
5	29.6 (50)	50/50	29.5 (50)	100	50/50	29.5 (50)	100	50/50	29.0 (50)	98	50/50
6	30.6 (50)	50/50	30.5 (50)	100	50/50	30.4 (50)	99	50/50	29.9 (50)	98	50/50
7	31.8 (50)	50/50	31.8 (50)	100	50/50	31.7 (50)	100	50/50	31.0 (50)	97	50/50
8	31.3 (50)	50/50	31.5 (50)	101	50/50	31.5 (50)	101	50/50	31.1 (50)	99	50/50
9	33.4 (50)	50/50	33.6 (50)	101	50/50	33.4 (50)	100	50/50	32.8 (50)	98	50/50
10	34.3 (50)	50/50	34.6 (50)	101	50/50	34.4 (50)	100	50/50	33.6 (50)	98	50/50
11	35.3 (50)	50/50	35.1 (50)	99	50/50	34.8 (50)	99	50/50	34.0 (50)	96	50/50
12	35.6 (50)	50/50	35.6 (50)	100	50/50	35.4 (50)	99	50/50	34.6 (50)	97	50/50
13	36.1 (50)	50/50	36.0 (50)	100	50/50	35.9 (50)	99	50/50	34.9 (50)	97	50/50
14	36.7 (50)	50/50	36.9 (50)	101	50/50	36.7 (50)	100	50/50	35.7 (50)	97	50/50
16	37.2 (50)	50/50	37.4 (50)	101	50/50	37.3 (50)	100	50/50	36.2 (50)	97	50/50
18	38.1 (50)	50/50	38.3 (50)	101	50/50	38.1 (50)	100	50/50	36.6 (50)	96	50/50
20	39.3 (50)	50/50	39.7 (50)	101	50/50	39.5 (50)	101	50/50	38.1 (50)	97	50/50
22	40.3 (50)	50/50	40.7 (50)	101	50/50	40.5 (50)	100	50/50	38.8 (50)	96	50/50
24	41.6 (50)	50/50	42.2 (50)	101	50/50	41.9 (50)	101	50/50	40.1 (50)	96	50/50
26	42.9 (50)	50/50	43.3 (50)	101	50/50	43.4 (50)	101	50/50	41.6 (50)	97	50/50
28	43.5 (50)	50/50	44.3 (50)	102	50/50	44.4 (50)	102	50/50	41.8 (50)	96	50/50
30	44.3 (50)	50/50	45.2 (50)	102	50/50	45.1 (50)	102	50/50	42.6 (50)	96	50/50
32	45.3 (50)	50/50	46.3 (50)	102	50/50	45.6 (50)	101	50/50	43.4 (50)	96	50/50
34	45.6 (50)	50/50	46.6 (50)	102	50/50	46.1 (50)	101	50/50	43.8 (50)	96	50/50
36	46.8 (50)	50/50	47.4 (50)	101	50/50	47.0 (50)	100	50/50	44.8 (50)	96	50/50
38	47.4 (50)	50/50	48.1 (50)	101	50/50	47.4 (50)	100	50/50	45.6 (50)	96	50/50
40	47.9 (50)	50/50	48.6 (50)	101	50/50	48.0 (50)	100	50/50	46.0 (50)	96	50/50
42	48.8 (50)	50/50	49.4 (50)	101	50/50	48.9 (50)	100	50/50	46.9 (50)	96	50/50
44	49.0 (50)	50/50	50.1 (50)	102	50/50	49.8 (50)	102	50/50	47.7 (49)	97	49/50
46	49.6 (49)	49/50	50.3 (50)	101	50/50	50.6 (49)	102	49/50	48.1 (49)	97	49/50
48	49.9 (49)	49/50	50.5 (50)	101	50/50	51.0 (49)	102	49/50	48.3 (49)	97	49/50
50	49.8 (49)	49/50	50.5 (50)	101	50/50	50.9 (49)	102	49/50	48.5 (49)	97	49/50
52	50.8 (49)	48/50	51.3 (50)	101	50/50	51.8 (49)	102	49/50	49.3 (49)	97	49/50
54	50.7 (47)	47/50	50.9 (50)	100	50/50	51.6 (49)	102	49/50	49.0 (49)	97	49/50
56	51.5 (47)	47/50	52.1 (50)	101	50/50	52.2 (49)	101	49/50	49.3 (49)	96	49/50
58	50.6 (47)	47/50	51.3 (50)	101	50/50	52.1 (49)	103	49/50	48.9 (49)	97	49/50
60	50.9 (46)	46/50	51.4 (50)	101	50/50	52.0 (49)	102	49/50	48.9 (49)	96	49/50
62	51.4 (46)	45/50	52.3 (50)	102	50/50	52.7 (49)	103	49/50	49.4 (49)	96	49/50
64	53.1 (43)	43/50	52.9 (50)	100	50/50	53.8 (49)	101	49/50	49.6 (49)	93	49/50
66	52.9 (43)	43/50	52.7 (49)	100	49/50	53.5 (48)	101	48/50	49.0 (49)	93	49/50
68	53.4 (43)	43/50	52.9 (49)	99	49/50	53.9 (48)	101	48/50	49.1 (49)	92	49/50
70	53.4 (43)	43/50	52.7 (49)	99	48/50	53.9 (48)	101	48/50	49.2 (48)	92	48/50
72	53.5 (43)	43/50	53.2 (48)	99	48/50	54.5 (48)	102	48/50	48.8 (48)	91	48/50
74	53.7 (43)	43/50	53.5 (48)	100	48/50	54.6 (48)	102	48/50	49.0 (47)	91	47/50
76	53.9 (43)	43/50	54.1 (48)	100	48/50	55.0 (48)	102	48/50	48.6 (47)	90	47/50
78	53.4 (43)	42/50	53.5 (48)	100	48/50	54.4 (48)	102	48/50	47.8 (47)	90	47/50
80	54.8 (42)	42/50	54.4 (48)	99	48/50	55.3 (47)	101	47/50	47.5 (47)	87	47/50
82	54.5 (42)	42/50	54.3 (48)	100	48/50	55.2 (47)	101	47/50	47.1 (46)	86	46/50
84	54.7 (41)	41/50	54.1 (47)	99	47/50	54.9 (47)	100	47/50	46.2 (46)	84	46/50
86	53.8 (41)	41/50	53.4 (47)	99	47/50	54.9 (46)	102	45/50	44.6 (46)	83	46/50
88	53.9 (41)	41/50	53.8 (47)	100	47/50	55.1 (44)	102	44/50	43.3 (46)	80	46/50
90	54.0 (40)	40/50	53.2 (47)	99	47/50	54.1 (43)	100	43/50	41.9 (44)	78	44/50
92	53.5 (40)	40/50	53.4 (47)	100	47/50	53.9 (43)	101	43/50	41.0 (42)	77	41/50
94	53.7 (39)	39/50	53.3 (45)	99	45/50	53.4 (43)	99	43/50	40.8 (41)	76	41/50
96	54.1 (36)	36/50	53.4 (44)	99	44/50	53.1 (42)	98	42/50	40.3 (39)	74	39/50
98	53.2 (36)	36/50	52.3 (44)	98	43/50	52.1 (41)	98	41/50	39.0 (38)	73	38/50
100	53.5 (36)	36/50	52.3 (43)	98	43/50	52.5 (40)	98	40/50	38.4 (36)	72	34/50
102	52.8 (35)	35/50	51.5 (42)	98	42/50	51.3 (38)	97	38/50	37.3 (34)	71	34/50
104	51.4 (35)	35/50	49.4 (42)	96	42/50	50.7 (38)	99	38/50	36.2 (33)	70	33/50

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

TABLE 19 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN FEMALE MICE

(TWO-YEAR STUDY)

Week on Study	Control Av.Wt.	Control No.of Surviv. <50>	400 ppm Av.Wt.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.Wt.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.Wt.	10000 ppm % of cont. <49>	10000 ppm No.of Surviv.
0	19.7 (50)	50/50	19.7 (50)	100	50/50	19.7 (50)	100	50/50	19.7 (49)	100	50/50
1	20.0 (50)	50/50	20.1 (50)	101	50/50	19.9 (50)	100	50/50	19.8 (49)	99	50/50
2	20.2 (50)	50/50	20.7 (50)	102	50/50	20.4 (50)	101	50/50	20.0 (49)	99	50/50
3	22.1 (50)	50/50	22.4 (50)	101	50/50	22.4 (50)	101	50/50	21.8 (49)	99	50/50
4	21.3 (50)	50/50	21.9 (50)	103	50/50	21.7 (50)	102	50/50	21.3 (49)	100	50/50
5	23.1 (50)	50/50	23.5 (50)	102	50/50	23.5 (50)	102	50/50	22.9 (49)	99	50/50
6	23.5 (50)	50/50	23.9 (50)	102	50/50	23.9 (50)	102	50/50	23.1 (49)	98	50/50
7	24.0 (50)	50/50	24.4 (50)	102	50/50	24.2 (50)	101	50/50	23.5 (49)	98	50/50
8	23.2 (50)	50/50	23.6 (50)	102	50/50	23.7 (50)	102	50/50	22.9 (49)	99	50/50
9	24.6 (50)	50/50	25.1 (50)	102	50/50	25.1 (50)	102	50/50	24.3 (49)	99	50/50
10	25.2 (50)	50/50	25.4 (50)	101	50/50	25.4 (50)	101	50/50	24.5 (48)	97	49/50
11	25.4 (50)	50/50	25.5 (50)	100	50/50	25.7 (50)	101	50/50	24.8 (48)	98	49/50
12	25.4 (50)	50/50	25.4 (49)	100	49/50	25.7 (50)	101	50/50	24.9 (48)	98	49/50
13	26.0 (50)	50/50	26.1 (49)	100	49/50	25.8 (50)	99	50/50	24.4 (48)	94	49/50
14	26.0 (50)	50/50	25.9 (49)	100	49/50	26.0 (50)	100	50/50	25.1 (48)	97	49/50
16	26.9 (50)	50/50	27.0 (49)	100	49/50	26.8 (50)	100	50/50	25.9 (48)	96	49/50
18	26.9 (50)	50/50	26.9 (49)	100	49/50	26.8 (50)	100	50/50	26.0 (48)	97	49/50
20	27.5 (50)	50/50	28.1 (49)	102	49/50	27.9 (50)	101	50/50	27.0 (48)	98	49/50
22	28.3 (50)	50/50	28.2 (48)	100	48/50	28.0 (50)	99	50/50	27.4 (48)	97	48/49
24	28.9 (50)	50/50	29.1 (48)	101	48/50	28.5 (50)	99	50/50	27.9 (48)	97	48/49
26	29.2 (50)	50/50	29.2 (48)	100	48/50	29.1 (50)	100	50/50	28.1 (48)	96	48/49
28	29.9 (50)	50/50	30.4 (48)	102	48/50	30.1 (50)	101	50/50	28.7 (48)	96	48/49
30	30.4 (50)	50/50	30.2 (48)	99	48/50	30.1 (50)	99	50/50	28.9 (48)	95	48/49
32	30.6 (50)	50/50	31.0 (48)	101	48/50	30.8 (50)	101	50/50	29.1 (48)	95	48/49
34	30.8 (50)	50/50	31.2 (48)	101	48/50	30.9 (50)	100	50/50	29.4 (48)	95	48/49
36	31.2 (50)	50/50	31.5 (48)	101	48/50	31.6 (50)	101	50/50	30.1 (48)	96	48/49
38	32.3 (50)	50/50	32.7 (48)	101	48/50	32.5 (50)	101	50/50	30.9 (48)	96	48/49
40	33.1 (50)	50/50	33.0 (48)	100	48/50	33.3 (50)	101	50/50	31.3 (48)	95	48/49
42	33.1 (50)	50/50	33.4 (48)	101	48/50	33.7 (50)	102	50/50	31.6 (48)	95	48/49
44	34.4 (50)	50/50	34.8 (48)	101	48/50	34.0 (50)	99	50/50	32.8 (48)	95	48/49
46	34.7 (50)	50/50	34.8 (48)	100	48/50	35.1 (50)	101	50/50	32.8 (48)	95	48/49
48	35.6 (50)	50/50	35.9 (48)	101	48/50	34.9 (50)	98	50/50	33.2 (48)	93	48/49
50	35.7 (50)	50/50	35.9 (48)	101	48/50	35.5 (50)	99	50/50	33.6 (47)	94	47/49
52	36.8 (50)	50/50	36.6 (48)	99	48/50	36.6 (50)	99	50/50	34.3 (47)	93	47/49
54	36.8 (50)	50/50	36.7 (48)	100	47/50	36.4 (50)	99	50/50	34.8 (47)	95	47/49
56	37.7 (50)	50/50	37.5 (46)	99	46/50	36.4 (49)	97	49/50	35.3 (47)	94	47/49
58	36.8 (50)	50/50	37.2 (46)	101	46/50	36.9 (49)	100	49/50	35.5 (47)	96	47/49
60	37.6 (49)	49/50	37.8 (45)	101	45/50	37.6 (49)	100	49/50	35.5 (47)	94	47/49
62	37.5 (49)	49/50	37.7 (44)	101	44/50	36.9 (49)	98	48/50	35.7 (46)	95	46/49
64	37.7 (49)	49/50	37.9 (43)	101	43/50	37.8 (48)	100	48/50	35.7 (46)	95	46/49
66	37.4 (49)	49/50	38.5 (43)	103	43/50	37.2 (48)	99	48/50	36.5 (46)	98	46/49
68	37.7 (47)	47/50	38.4 (42)	102	42/50	37.6 (47)	100	47/50	36.7 (46)	97	46/49
70	37.9 (46)	46/50	38.0 (42)	100	42/50	37.1 (47)	98	46/50	36.5 (45)	96	45/49
72	38.4 (46)	45/50	37.4 (41)	97	41/50	37.3 (46)	97	46/50	37.1 (45)	97	45/49
74	38.7 (45)	45/50	38.1 (41)	98	41/50	37.2 (46)	96	46/50	36.2 (44)	94	43/49
76	38.2 (44)	44/50	37.6 (41)	98	41/50	36.9 (46)	97	46/50	36.3 (43)	95	43/49
78	37.3 (43)	43/50	36.5 (41)	98	41/50	36.4 (46)	98	46/50	35.8 (42)	96	41/49
80	37.8 (43)	43/50	37.7 (40)	100	40/50	37.3 (44)	99	44/50	36.5 (40)	97	40/49
82	37.6 (43)	43/50	37.2 (40)	99	40/50	36.7 (41)	98	41/50	35.1 (39)	93	39/49
84	38.5 (40)	40/50	36.9 (40)	96	40/50	36.1 (41)	94	41/50	34.4 (39)	89	39/49
86	37.8 (40)	40/50	36.7 (40)	97	40/50	36.6 (37)	97	37/50	33.4 (39)	88	39/49
88	38.9 (37)	36/50	37.0 (40)	95	40/50	37.5 (36)	96	36/50	33.3 (38)	86	38/49
90	38.6 (36)	36/50	36.0 (39)	93	39/50	37.0 (36)	96	36/50	32.1 (38)	83	38/49
92	38.4 (34)	34/50	36.9 (38)	96	37/50	36.8 (35)	96	35/50	32.5 (36)	85	36/49
94	37.9 (32)	32/50	36.3 (35)	96	35/50	36.7 (35)	97	35/50	31.0 (33)	82	33/49
96	37.4 (30)	30/50	36.6 (32)	98	32/50	36.0 (33)	96	32/50	30.6 (32)	82	32/49
98	36.9 (29)	28/50	36.6 (31)	99	29/50	35.9 (31)	97	31/50	30.3 (32)	82	32/49
100	35.9 (28)	28/50	35.9 (29)	100	29/50	36.2 (29)	101	28/50	29.5 (30)	82	30/49
102	35.8 (28)	28/50	36.3 (29)	101	28/50	35.7 (27)	100	27/50	29.4 (27)	82	27/49
104	35.7 (26)	26/50	36.0 (27)	101	27/50	37.2 (25)	104	25/50	29.3 (24)	82	23/49

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

TABLE 20 INCIDENCE OF EXTERNAL AND INTERNAL MASS IN CLINICAL OBSERVATION IN MALE MICE

Time of mass occurrence (week)	0～13	14～26	27～39	40～52	53～65	66～78	79～91	92～104	0～104
External mass (Includeing Mass[Oral cavity])									
Control	0/50	0/50	0/50	0/50	2/48	1/43	2/42	4/40	5/50 (1/15)
400 ppm	0/50	0/50	0/50	0/50	2/50	2/49	5/48	8/47	8/50 (2/ 8)
2000 ppm	0/50	0/50	0/50	0/50	1/49	1/48	3/48	3/43	4/50 (1/12)
10000 ppm	0/50	0/50	0/50	0/50	1/49	3/49	4/47	9/41	11/50 (8/17)
Mass [Oral cavity]									
Control	0/50	0/50	0/50	0/50	0/48	0/43	0/42	0/40	0/50 (0/15)
400 ppm	0/50	0/50	0/50	0/50	0/50	0/49	0/48	0/47	0/50 (0/ 8)
2000 ppm	0/50	0/50	0/50	0/50	0/49	0/48	0/48	0/43	0/50 (0/12)
10000 ppm	0/50	0/50	0/50	0/50	0/49	1/49	3/47	5/41	6/50 (5/17)
Internal mass									
Control	1/50	2/50	3/50	2/50	1/48	1/43	1/42	6/40	10/50 (6/15)
400 ppm	0/50	0/50	0/50	0/50	0/50	7/49	6/48	12/47	18/50 (7/ 8)
2000 ppm	0/50	0/50	0/50	0/50	0/49	1/48	4/48	9/43	11/50 (3/12)
10000 ppm	0/50	0/50	0/50	0/50	0/49	3/49	4/47	2/41	5/50 (4/17)

No. of animals with mass/No. of survival animals at first week on each period.
(No. of dead and moribund animals with mass/No. of dead and moribund animals.)

TABLE 21 INCIDENCE OF EXTERNAL AND INTERNAL MASS IN CLINICAL OBSERVATION IN FEMALE MICE

Time of mass occurrence (week)	0～13	14～26	27～39	40～52	53～65	66～78	79～91	92～104	0～104
External mass (Includeing Mass[Oral cavity])									
Control	0/50	0/50	0/50	0/50	0/50	2/49	3/43	4/34	6/50 (5/24)
400 ppm	0/50	0/49	0/48	0/48	1/48	0/43	1/40	4/37	5/50 (4/23)
2000 ppm	0/50	0/50	0/50	0/50	0/50	1/48	1/44	1/35	3/50 (2/25)
10000 ppm	0/50	0/49	0/49	0/49	0/48	2/47	2/42	8/37	10/50 (6/26)
Mass [Oral cavity]									
Control	0/50	0/50	0/50	0/50	0/50	0/49	0/43	0/34	0/50 (0/24)
400 ppm	0/50	0/49	0/48	0/48	0/48	0/43	0/40	0/37	0/50 (0/23)
2000 ppm	0/50	0/50	0/50	0/50	0/50	0/48	0/44	0/35	0/50 (0/25)
10000 ppm	0/50	0/49	0/49	0/49	0/48	0/47	0/42	6/37	6/50 (4/26)
Internal mass									
Control	0/50	0/50	0/50	0/50	1/50	1/49	5/43	5/34	8/50 (7/24)
400 ppm	0/50	0/49	0/48	2/48	5/48	1/43	2/40	2/37	8/50 (7/23)
2000 ppm	0/50	0/50	0/50	0/50	0/50	2/48	8/44	7/35	11/50 (10/25)
10000 ppm	0/50	0/49	0/49	1/49	3/48	4/47	2/42	6/37	12/50 (10/26)

No. of animals with mass/No. of survival animals at first week on each period.
(No. of dead and moribund animals with mass/No. of dead and moribund animals.)

TABLE 22 WATER CONSUMPTION IN MALE MICE (TWO-YEAR STUDY)

Week-Day on Study	Control Av.WC.	Control No.of Surviv. <50>	400 ppm Av.WC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.WC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.WC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1-3	5.3 (50)	50/50	5.4 (50)	102	50/50	5.4 (50)	102	50/50	5.0 (50)	94	50/50
1-7	5.1 (50)	50/50	5.1 (50)	100	50/50	4.9 (50)	96	50/50	4.9 (50)	96	50/50
2-3	4.7 (50)	50/50	5.0 (50)	106	50/50	4.9 (50)	104	50/50	4.6 (50)	98	50/50
2-7	4.3 (50)	50/50	4.4 (50)	102	50/50	4.6 (50)	107	50/50	4.7 (50)	109	50/50
3-3	4.4 (50)	50/50	4.5 (50)	102	50/50	4.8 (50)	109	50/50	4.7 (50)	107	50/50
3-7	4.3 (49)	50/50	4.5 (50)	105	50/50	4.7 (50)	109	50/50	4.5 (50)	105	50/50
4-3	4.2 (50)	50/50	4.6 (50)	110	50/50	4.6 (50)	110	50/50	4.5 (50)	107	50/50
4-7	4.0 (50)	50/50	4.4 (50)	110	50/50	4.3 (50)	108	50/50	4.6 (50)	115	50/50
5-3	4.1 (50)	50/50	4.5 (50)	110	50/50	4.6 (50)	112	50/50	4.4 (50)	107	50/50
5-7	4.0 (50)	50/50	4.2 (50)	105	50/50	4.4 (50)	110	50/50	4.3 (50)	108	50/50
6-3	4.2 (49)	50/50	4.2 (50)	100	50/50	4.2 (50)	100	50/50	4.2 (50)	100	50/50
6-7	3.8 (50)	50/50	4.0 (49)	105	50/50	4.0 (50)	105	50/50	4.0 (50)	105	50/50
7-3	3.9 (50)	50/50	4.1 (50)	105	50/50	4.4 (50)	113	50/50	4.3 (50)	110	50/50
7-7	3.9 (50)	50/50	3.9 (50)	100	50/50	4.0 (50)	103	50/50	4.0 (50)	103	50/50
8-3	4.0 (49)	50/50	4.2 (50)	105	50/50	4.3 (50)	108	50/50	4.3 (50)	108	50/50
8-7	5.0 (50)	50/50	4.1 (50)	82	50/50	4.2 (50)	84	50/50	4.4 (50)	88	50/50
9-3	4.6 (50)	50/50	4.1 (50)	89	50/50	4.3 (50)	93	50/50	4.3 (50)	93	50/50
9-7	4.0 (50)	50/50	3.9 (50)	98	50/50	4.0 (50)	100	50/50	3.7 (50)	93	50/50
10-3	4.0 (50)	50/50	3.9 (50)	98	50/50	4.1 (50)	103	50/50	4.0 (50)	100	50/50
10-7	4.0 (50)	50/50	3.9 (50)	98	50/50	3.9 (50)	98	50/50	4.0 (50)	100	50/50
11-3	4.1 (50)	50/50	4.2 (50)	102	50/50	4.5 (50)	110	50/50	4.4 (50)	107	50/50
11-7	4.0 (50)	50/50	4.0 (50)	100	50/50	3.9 (50)	98	50/50	3.9 (50)	98	50/50
12-3	3.9 (50)	50/50	3.9 (50)	100	50/50	4.2 (50)	108	50/50	4.1 (50)	105	50/50
12-7	4.0 (50)	50/50	3.9 (50)	98	50/50	3.9 (50)	98	50/50	3.6 (50)	90	50/50
13-3	4.3 (50)	50/50	4.1 (50)	95	50/50	4.1 (50)	95	50/50	4.0 (50)	93	50/50
13-7	4.6 (50)	50/50	3.9 (50)	85	50/50	3.9 (50)	85	50/50	3.8 (50)	83	50/50
14-3	4.3 (50)	50/50	4.1 (50)	95	50/50	4.1 (50)	95	50/50	4.0 (49)	93	50/50
14-7	4.5 (50)	50/50	4.3 (50)	96	50/50	4.1 (50)	91	50/50	3.9 (50)	87	50/50
16-7	4.3 (50)	50/50	4.2 (50)	98	50/50	4.0 (50)	93	50/50	3.7 (50)	86	50/50
18-7	4.5 (50)	50/50	4.5 (50)	100	50/50	4.3 (50)	96	50/50	4.0 (50)	89	50/50
20-7	4.3 (50)	50/50	4.2 (50)	98	50/50	3.9 (50)	91	50/50	4.0 (50)	93	50/50
22-7	4.6 (50)	50/50	4.3 (50)	93	50/50	3.9 (50)	85	50/50	3.9 (50)	85	50/50
24-7	4.4 (50)	50/50	4.2 (50)	95	50/50	4.3 (50)	98	50/50	4.2 (50)	95	50/50
26-7	4.2 (50)	50/50	4.1 (50)	98	50/50	4.1 (50)	98	50/50	4.1 (50)	98	50/50
28-7	4.7 (50)	50/50	4.5 (50)	96	50/50	4.0 (50)	85	50/50	4.2 (50)	89	50/50
30-7	4.2 (50)	50/50	4.2 (50)	100	50/50	4.2 (50)	100	50/50	4.1 (50)	98	50/50
32-7	4.5 (50)	50/50	4.4 (50)	98	50/50	4.4 (50)	98	50/50	4.4 (50)	98	50/50
34-7	4.7 (50)	50/50	4.6 (50)	98	50/50	4.4 (50)	94	50/50	4.4 (49)	94	50/50
36-7	4.4 (50)	50/50	4.3 (50)	98	50/50	4.1 (50)	93	50/50	4.0 (50)	91	50/50
38-7	4.1 (50)	50/50	3.9 (49)	95	50/50	5.5 (50)	134	50/50	3.8 (50)	93	50/50
40-7	4.4 (50)	50/50	4.4 (50)	100	50/50	4.3 (50)	98	50/50	4.4 (50)	100	50/50
42-7	4.8 (50)	50/50	4.8 (50)	100	50/50	4.5 (50)	94	50/50	4.3 (50)	90	50/50
44-7	4.5 (50)	50/50	4.5 (50)	100	50/50	4.1 (50)	91	50/50	3.9 (48)	87	49/50
46-7	4.7 (49)	49/50	4.6 (50)	98	50/50	4.6 (49)	98	49/50	4.5 (49)	96	49/50
48-7	4.6 (49)	49/50	4.6 (50)	100	50/50	4.5 (49)	98	49/50	4.1 (49)	89	49/50
50-7	4.6 (49)	49/50	4.5 (50)	98	50/50	4.3 (49)	93	49/50	4.2 (49)	91	49/50
52-7	4.8 (49)	48/50	4.4 (50)	92	50/50	4.6 (49)	96	49/50	4.2 (49)	88	49/50
54-7	4.9 (47)	47/50	4.6 (50)	94	50/50	4.8 (49)	98	49/50	4.3 (49)	88	49/50
56-7	5.0 (47)	47/50	4.6 (50)	92	50/50	4.7 (49)	94	49/50	4.1 (49)	82	49/50
58-7	4.7 (47)	47/50	5.5 (50)	117	50/50	4.6 (49)	98	49/50	4.0 (49)	85	49/50
60-7	5.0 (46)	46/50	4.6 (50)	92	50/50	4.4 (49)	88	49/50	3.9 (49)	78	49/50
62-7	5.2 (46)	45/50	4.7 (50)	90	50/50	4.6 (49)	88	49/50	4.1 (49)	79	49/50
64-7	4.6 (43)	43/50	4.7 (50)	102	50/50	4.6 (49)	100	49/50	4.0 (49)	87	49/50
66-7	4.7 (43)	43/50	4.6 (49)	98	49/50	4.5 (48)	96	48/50	4.0 (49)	85	49/50
68-7	5.1 (43)	43/50	4.8 (49)	94	49/50	4.7 (48)	92	48/50	4.1 (49)	80	49/50
70-7	4.8 (43)	43/50	4.9 (49)	102	48/50	4.6 (48)	96	48/50	3.9 (48)	81	48/50
72-7	5.1 (43)	43/50	5.2 (48)	102	48/50	4.8 (48)	94	48/50	4.1 (48)	80	48/50
74-7	5.0 (43)	43/50	5.1 (48)	102	48/50	4.8 (47)	96	48/50	4.1 (47)	82	47/50
76-7	5.2 (43)	43/50	5.4 (48)	104	48/50	5.0 (48)	96	48/50	4.2 (47)	81	47/50
78-7	5.2 (43)	42/50	5.7 (48)	110	48/50	5.0 (48)	96	48/50	4.5 (47)	87	47/50
80-7	5.3 (42)	42/50	5.3 (48)	100	48/50	5.0 (47)	94	47/50	4.2 (47)	79	47/50
82-7	4.8 (42)	42/50	5.3 (48)	110	48/50	5.3 (47)	110	47/50	4.4 (46)	92	46/50
84-7	5.5 (41)	41/50	5.3 (47)	96	47/50	5.1 (47)	93	47/50	4.1 (46)	75	46/50
86-7	5.4 (41)	41/50	5.4 (47)	100	47/50	5.1 (46)	94	45/50	4.0 (44)	74	46/50
88-7	5.7 (41)	41/50	5.5 (47)	96	47/50	5.3 (44)	93	44/50	3.9 (46)	68	46/50
90-7	5.4 (40)	40/50	5.4 (47)	100	47/50	5.2 (42)	96	43/50	3.8 (44)	70	44/50
92-7	5.5 (40)	40/50	5.7 (47)	104	47/50	5.5 (43)	100	43/50	3.9 (42)	71	41/50
94-7	5.4 (39)	39/50	5.5 (45)	102	45/50	5.4 (43)	100	43/50	4.0 (41)	74	41/50
96-7	5.3 (36)	36/50	5.9 (44)	111	44/50	5.4 (42)	102	42/50	4.1 (39)	77	39/50
98-7	5.5 (36)	36/50	5.8 (44)	105	43/50	5.5 (41)	100	41/50	3.9 (38)	71	38/50
100-7	5.9 (36)	36/50	6.3 (43)	107	43/50	5.7 (40)	97	40/50	4.2 (36)	71	34/50
102-7	5.4 (35)	35/50	6.0 (42)	111	42/50	5.7 (38)	106	38/50	3.8 (34)	70	34/50
104-7	5.9 (35)	35/50	6.8 (42)	115	42/50	6.2 (38)	105	38/50	3.8 (33)	64	33/50

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

TABLE 23 WATER CONSUMPTION IN FEMALE MICE (TWO-YEAR STUDY)

Week-Day on Study	Control Av.WC.	Control No.of Surviv. <50>	400 ppm Av.WC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.WC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.WC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1-3	4.6 (50)	50/50	4.7 (50)	102	50/50	4.7 (50)	102	50/50	4.4 (49)	96	50/50
1-7	4.6 (50)	50/50	4.6 (50)	100	50/50	4.8 (50)	104	50/50	4.3 (50)	93	50/50
2-3	4.3 (50)	50/50	4.6 (50)	107	50/50	4.5 (50)	105	50/50	4.2 (50)	98	50/50
2-7	4.4 (50)	50/50	4.2 (50)	95	50/50	4.3 (50)	98	50/50	4.2 (50)	95	50/50
3-3	4.6 (50)	50/50	4.3 (50)	93	50/50	4.6 (50)	100	50/50	4.5 (50)	98	50/50
3-7	4.7 (50)	50/50	4.5 (50)	96	50/50	4.5 (50)	96	50/50	4.4 (50)	94	50/50
4-3	4.6 (50)	50/50	4.3 (50)	93	50/50	4.3 (50)	93	50/50	4.5 (50)	98	50/50
4-7	4.8 (50)	50/50	4.5 (50)	94	50/50	4.4 (50)	92	50/50	4.4 (50)	92	50/50
5-3	5.1 (50)	50/50	4.3 (50)	84	50/50	4.6 (50)	90	50/50	4.3 (50)	84	50/50
5-7	5.0 (50)	50/50	4.5 (50)	90	50/50	4.4 (50)	88	50/50	4.4 (50)	88	50/50
6-3	5.1 (49)	50/50	4.4 (49)	86	50/50	4.4 (50)	86	50/50	4.2 (50)	82	50/50
6-7	5.8 (50)	50/50	4.8 (50)	83	50/50	4.5 (50)	78	50/50	4.3 (50)	74	50/50
7-3	5.0 (50)	50/50	4.7 (50)	94	50/50	4.4 (50)	88	50/50	4.6 (50)	92	50/50
7-7	5.1 (50)	50/50	4.6 (50)	90	50/50	4.5 (50)	88	50/50	4.5 (50)	88	50/50
8-3	5.6 (49)	50/50	5.0 (50)	89	50/50	4.6 (50)	82	50/50	4.6 (50)	82	50/50
8-7	6.1 (50)	50/50	5.2 (50)	85	50/50	4.5 (50)	74	50/50	4.5 (50)	74	50/50
9-3	5.8 (50)	50/50	5.2 (50)	90	50/50	4.8 (50)	83	50/50	4.6 (50)	79	50/50
9-7	5.7 (50)	50/50	5.1 (50)	89	50/50	4.5 (50)	79	50/50	4.3 (50)	75	50/50
10-3	5.2 (50)	50/50	5.0 (50)	96	50/50	4.5 (50)	87	50/50	4.4 (50)	85	49/50
10-7	5.5 (50)	50/50	5.3 (50)	96	50/50	4.6 (49)	84	50/50	4.6 (49)	84	49/50
11-3	5.6 (50)	50/50	4.6 (50)	82	50/50	4.5 (50)	80	50/50	4.5 (49)	80	49/50
11-7	5.7 (50)	50/50	5.2 (50)	91	50/50	4.6 (50)	81	50/50	4.8 (49)	84	49/50
12-3	5.5 (50)	50/50	5.3 (50)	96	50/50	4.7 (50)	85	50/50	4.8 (49)	87	49/50
12-7	6.2 (50)	50/50	6.4 (50)	103	49/50	5.1 (50)	82	50/50	4.7 (49)	76	49/50
13-3	5.7 (50)	50/50	6.4 (49)	112	49/50	5.7 (50)	100	50/50	4.7 (49)	82	49/50
13-7	6.4 (50)	50/50	7.2 (49)	113	49/50	5.9 (50)	92	50/50	4.8 (49)	75	49/50
14-3	6.2 (50)	50/50	6.2 (49)	100	49/50	5.5 (50)	89	50/50	4.9 (49)	79	49/50
14-7	7.0 (50)	50/50	7.8 (49)	111	49/50	5.9 (50)	84	50/50	5.1 (49)	73	49/50
16-7	5.9 (50)	50/50	6.3 (49)	107	49/50	5.0 (50)	85	50/50	4.7 (48)	80	49/50
18-7	6.2 (50)	50/50	7.1 (47)	115	49/50	6.1 (48)	98	50/50	4.7 (48)	76	49/50
20-7	6.0 (50)	50/50	5.8 (49)	97	49/50	5.3 (50)	88	50/50	4.6 (48)	77	49/50
22-7	5.3 (50)	50/50	5.7 (48)	108	48/50	4.9 (50)	92	50/50	4.4 (48)	83	48/49
24-7	5.9 (50)	50/50	5.4 (48)	92	48/50	5.0 (50)	85	50/50	4.8 (48)	81	48/49
26-7	5.9 (50)	50/50	5.6 (48)	95	48/50	4.9 (50)	83	50/50	4.5 (48)	76	48/49
28-7	5.4 (50)	50/50	5.5 (48)	102	48/50	5.0 (50)	93	50/50	4.5 (48)	83	48/49
30-7	5.2 (50)	50/50	5.2 (48)	100	48/50	4.8 (50)	92	50/50	4.4 (48)	85	48/49
32-7	5.2 (50)	50/50	5.4 (48)	104	48/50	4.9 (50)	94	50/50	4.6 (48)	88	48/49
34-7	5.6 (50)	50/50	6.0 (48)	107	48/50	5.5 (50)	98	50/50	4.7 (48)	84	48/49
36-7	6.0 (50)	50/50	5.4 (48)	90	48/50	4.7 (50)	78	50/50	4.4 (48)	73	48/49
38-7	4.8 (50)	50/50	4.8 (48)	100	48/50	4.7 (50)	98	50/50	4.3 (48)	90	48/49
40-7	5.2 (50)	50/50	4.8 (48)	92	48/50	4.6 (50)	88	50/50	4.6 (48)	88	48/49
42-7	5.5 (50)	50/50	5.9 (48)	107	48/50	5.6 (50)	102	50/50	4.9 (48)	89	48/49
44-7	5.7 (49)	50/50	5.1 (48)	89	48/50	5.1 (50)	89	50/50	4.2 (47)	74	48/49
46-7	5.2 (50)	50/50	5.1 (48)	98	48/50	4.9 (50)	94	50/50	4.8 (48)	92	48/49
48-7	5.2 (50)	50/50	5.0 (48)	96	48/50	5.2 (50)	100	50/50	4.6 (48)	88	48/49
50-7	5.2 (50)	50/50	5.3 (48)	102	48/50	5.0 (50)	96	50/50	4.5 (47)	87	47/49
52-7	5.0 (50)	50/50	4.6 (48)	92	48/50	4.7 (50)	94	50/50	4.3 (47)	86	47/49
54-7	4.6 (50)	50/50	4.7 (48)	102	47/50	5.0 (50)	109	50/50	4.5 (47)	98	47/49
56-7	4.9 (49)	50/50	4.3 (46)	88	46/50	4.8 (50)	98	49/50	4.3 (47)	88	47/49
58-7	4.6 (50)	50/50	4.4 (46)	96	46/50	4.9 (48)	107	49/50	4.3 (47)	93	47/49
60-7	4.5 (49)	49/50	4.4 (45)	98	45/50	4.7 (49)	104	49/50	4.1 (47)	91	47/49
62-7	4.7 (49)	49/50	4.6 (44)	98	44/50	4.5 (49)	96	48/50	4.2 (46)	89	46/49
64-7	4.5 (49)	49/50	4.3 (43)	96	43/50	4.3 (48)	96	48/50	3.9 (46)	87	46/49
66-7	4.3 (49)	49/50	4.3 (43)	100	43/50	4.3 (48)	100	48/50	4.0 (46)	93	46/49
68-7	5.4 (47)	47/50	5.0 (42)	93	42/50	4.4 (47)	81	47/50	4.1 (46)	76	46/49
70-7	4.6 (46)	46/50	4.7 (42)	102	42/50	4.3 (47)	93	46/50	4.1 (45)	89	45/49
72-7	4.8 (46)	45/50	4.8 (41)	100	41/50	4.3 (46)	90	46/50	3.8 (45)	79	45/49
74-7	4.9 (45)	45/50	4.9 (41)	100	41/50	4.6 (46)	94	46/50	4.3 (44)	88	43/49
76-7	4.7 (44)	44/50	4.8 (41)	102	41/50	4.6 (46)	98	46/50	4.0 (43)	85	43/49
78-7	4.9 (43)	43/50	4.9 (41)	100	41/50	4.7 (46)	96	46/50	4.3 (42)	88	41/49
80-7	5.1 (43)	43/50	4.7 (40)	92	40/50	4.6 (44)	90	44/50	4.1 (40)	80	40/49
82-7	4.8 (43)	43/50	4.8 (40)	100	40/50	5.7 (41)	119	41/50	4.1 (39)	85	39/49
84-7	5.2 (40)	40/50	4.8 (40)	92	40/50	4.7 (41)	90	41/50	3.8 (39)	73	39/49
86-7	5.5 (40)	40/50	5.0 (40)	91	40/50	4.9 (37)	89	37/50	3.9 (39)	71	39/49
88-7	5.7 (37)	36/50	4.9 (40)	86	40/50	4.7 (36)	82	36/50	3.9 (38)	68	38/49
90-7	5.4 (36)	36/50	4.7 (39)	87	39/50	4.8 (36)	89	36/50	3.6 (38)	67	38/49
92-7	5.6 (35)	34/50	5.1 (37)	91	37/50	5.0 (35)	89	35/50	4.0 (36)	71	36/49
94-7	5.3 (32)	32/50	4.7 (35)	89	35/50	4.8 (35)	91	35/50	3.7 (33)	70	33/49

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

TABLE 24 FOOD CONSUMPTION IN MALE MICE (TWO-YEAR STUDY)

Week on Study	Control Av.FC.	Control No.of Surviv. <50>	400 ppm Av.FC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.FC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.FC.	10000 ppm % of cont. <50>	10000 ppm No.of Surviv.
1	4.3 (50)	50/50	4.2 (50)	98	50/50	4.3 (50)	100	50/50	4.2 (50)	98	50/50
2	4.1 (50)	50/50	4.1 (50)	100	50/50	4.1 (50)	100	50/50	4.1 (50)	100	50/50
3	3.9 (50)	50/50	4.0 (50)	103	50/50	4.2 (50)	108	50/50	4.1 (50)	105	50/50
4	4.1 (50)	50/50	4.1 (50)	100	50/50	4.2 (50)	102	50/50	4.1 (50)	100	50/50
5	4.0 (50)	50/50	4.1 (50)	103	50/50	4.2 (50)	105	50/50	4.1 (50)	103	50/50
6	4.2 (50)	50/50	4.2 (50)	100	50/50	4.3 (50)	102	50/50	4.2 (50)	100	50/50
7	4.1 (50)	50/50	4.2 (50)	102	50/50	4.2 (50)	102	50/50	4.1 (50)	100	50/50
8	4.1 (50)	50/50	4.3 (50)	105	50/50	4.3 (50)	105	50/50	4.2 (50)	102	50/50
9	4.2 (50)	50/50	4.1 (50)	98	50/50	4.2 (50)	100	50/50	4.1 (50)	98	50/50
10	4.3 (50)	50/50	4.3 (50)	100	50/50	4.4 (50)	102	50/50	4.3 (50)	100	50/50
11	4.3 (50)	50/50	4.2 (50)	98	50/50	4.3 (50)	100	50/50	4.2 (50)	98	50/50
12	4.3 (50)	50/50	4.3 (50)	100	50/50	4.3 (50)	100	50/50	4.2 (50)	98	50/50
13	4.2 (50)	50/50	4.3 (50)	102	50/50	4.4 (50)	105	50/50	4.3 (50)	102	50/50
14	4.3 (50)	50/50	4.5 (50)	105	50/50	4.4 (50)	102	50/50	4.3 (50)	100	50/50
18	4.4 (50)	50/50	4.4 (50)	100	50/50	4.6 (50)	105	50/50	4.4 (50)	100	50/50
22	4.4 (50)	50/50	4.5 (50)	102	50/50	4.5 (50)	102	50/50	4.4 (50)	100	50/50
26	4.1 (50)	50/50	3.9 (50)	95	50/50	3.8 (50)	93	50/50	4.3 (50)	105	50/50
30	4.2 (50)	50/50	4.3 (50)	102	50/50	4.3 (50)	102	50/50	4.3 (50)	102	50/50
34	4.4 (50)	50/50	4.4 (50)	100	50/50	4.3 (50)	98	50/50	4.4 (50)	100	50/50
38	4.4 (50)	50/50	4.5 (50)	102	50/50	4.5 (50)	102	50/50	4.4 (50)	100	50/50
42	4.5 (50)	50/50	4.5 (50)	100	50/50	4.6 (50)	102	50/50	4.5 (50)	100	50/50
46	4.5 (49)	49/50	4.5 (50)	100	50/50	4.6 (49)	102	49/50	4.5 (49)	100	49/50
50	4.7 (49)	49/50	4.7 (50)	100	50/50	4.8 (49)	102	49/50	4.8 (49)	102	49/50
54	4.8 (47)	47/50	4.8 (50)	100	50/50	4.9 (49)	102	49/50	4.9 (49)	102	49/50
58	4.7 (47)	47/50	4.7 (50)	100	50/50	4.9 (49)	104	49/50	4.7 (49)	100	49/50
62	4.9 (46)	45/50	5.0 (50)	102	50/50	5.0 (49)	102	49/50	4.8 (49)	98	49/50
66	4.9 (43)	43/50	4.8 (49)	98	49/50	4.9 (48)	100	48/50	4.7 (49)	96	49/50
70	4.9 (43)	43/50	4.9 (49)	100	48/50	5.1 (48)	104	48/50	4.8 (48)	98	48/50
74	4.8 (43)	43/50	4.9 (48)	102	48/50	4.9 (48)	102	48/50	4.9 (47)	102	47/50
78	4.8 (43)	42/50	4.9 (48)	102	48/50	4.9 (48)	102	48/50	4.8 (47)	100	47/50
82	4.8 (42)	42/50	4.9 (48)	102	48/50	5.0 (47)	104	47/50	4.6 (46)	96	46/50
86	4.8 (41)	41/50	4.8 (47)	100	47/50	4.9 (46)	102	45/50	4.6 (46)	96	46/50
90	4.5 (40)	40/50	4.5 (47)	100	47/50	4.5 (43)	100	43/50	4.4 (44)	98	44/50
94	4.5 (39)	39/50	4.7 (45)	104	45/50	4.5 (43)	102	43/50	4.4 (41)	98	41/50
98	4.3 (36)	36/50	4.3 (44)	100	43/50	4.2 (41)	98	41/50	4.1 (38)	95	38/50
102	4.4 (35)	35/50	4.6 (42)	105	42/50	4.4 (38)	100	38/50	4.3 (34)	98	34/50
104	4.4 (35)	35/50	4.4 (42)	100	42/50	4.6 (38)	105	38/50	4.8 (33)	109	33/50

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

(BI0040)

TABLE 25 FOOD CONSUMPTION IN FEMALE MICE (TWO-YEAR STUDY)

Week on Study	Control Av.FC.	Control No.of Surviv. <50>	400 ppm Av.FC.	400 ppm % of cont. <50>	400 ppm No.of Surviv.	2000 ppm Av.FC.	2000 ppm % of cont. <50>	2000 ppm No.of Surviv.	10000 ppm Av.FC.	10000 ppm % of cont. <49>	10000 ppm No.of Surviv.
1	3.7 (50)	50/50	3.8 (50)	103	50/50	3.7 (50)	100	50/50	3.6 (49)	97	50/50
2	3.4 (50)	50/50	3.6 (50)	106	50/50	3.6 (50)	106	50/50	3.5 (49)	103	50/50
3	3.5 (50)	50/50	3.5 (50)	100	50/50	3.6 (50)	103	50/50	3.5 (49)	100	50/50
4	3.5 (50)	50/50	3.5 (50)	100	50/50	3.6 (50)	103	50/50	3.5 (49)	100	50/50
5	3.6 (50)	50/50	3.6 (50)	100	50/50	3.7 (50)	103	50/50	3.6 (49)	100	50/50
6	3.7 (50)	50/50	3.6 (50)	97	50/50	3.8 (50)	103	50/50	3.6 (49)	97	50/50
7	3.6 (50)	50/50	3.6 (50)	100	50/50	3.7 (50)	103	50/50	3.7 (49)	103	50/50
8	3.7 (50)	50/50	3.3 (50)	89	50/50	3.8 (50)	103	50/50	3.7 (49)	100	50/50
9	3.5 (50)	50/50	3.7 (50)	106	50/50	3.8 (50)	109	50/50	3.7 (49)	106	50/50
10	3.8 (50)	50/50	3.7 (50)	97	50/50	3.8 (50)	100	50/50	3.7 (48)	97	49/50
11	3.8 (50)	50/50	3.7 (50)	97	50/50	3.9 (50)	103	50/50	3.9 (48)	103	49/50
12	3.8 (50)	50/50	3.7 (50)	97	49/50	3.9 (50)	103	50/50	3.8 (48)	100	49/50
13	4.0 (50)	50/50	4.0 (49)	100	49/50	4.0 (50)	100	50/50	3.9 (48)	98	49/50
14	3.9 (50)	50/50	3.9 (49)	100	49/50	4.0 (50)	103	50/50	4.0 (48)	103	49/50
18	4.0 (50)	50/50	4.0 (49)	100	49/50	4.1 (50)	103	50/50	4.1 (48)	103	49/50
22	4.0 (50)	50/50	3.9 (49)	98	48/50	4.2 (50)	105	50/50	4.0 (48)	100	48/49
26	4.0 (50)	50/50	3.8 (48)	95	48/50	4.0 (50)	100	50/50	3.8 (48)	95	48/49
30	4.0 (50)	50/50	3.8 (48)	95	48/50	4.0 (50)	100	50/50	3.9 (48)	98	48/49
34	4.0 (50)	50/50	4.0 (48)	100	48/50	4.1 (50)	103	50/50	4.1 (48)	103	48/49
38	4.2 (50)	50/50	4.2 (48)	100	48/50	4.2 (50)	100	50/50	4.1 (48)	98	48/49
42	3.9 (50)	50/50	4.0 (48)	103	48/50	4.1 (50)	105	50/50	3.9 (48)	100	48/49
46	4.3 (50)	50/50	4.2 (48)	98	48/50	4.4 (50)	102	50/50	4.1 (48)	95	48/49
50	4.3 (50)	50/50	4.2 (48)	98	48/50	4.4 (50)	102	50/50	4.2 (47)	98	47/49
54	4.3 (50)	50/50	4.2 (48)	98	47/50	4.3 (50)	100	50/50	4.4 (47)	102	47/49
58	4.3 (50)	50/50	4.4 (46)	102	46/50	4.6 (49)	107	49/50	4.5 (47)	105	47/49
62	4.2 (49)	49/50	4.1 (44)	98	44/50	4.2 (49)	100	48/50	4.2 (46)	100	46/49
66	4.1 (49)	49/50	4.4 (43)	107	43/50	4.3 (48)	105	48/50	4.6 (46)	112	46/49
70	4.3 (46)	46/50	4.4 (42)	102	42/50	4.4 (47)	102	46/50	4.6 (45)	107	45/49
74	4.4 (45)	45/50	4.5 (41)	102	41/50	4.5 (46)	102	46/50	4.4 (44)	100	43/49
78	4.4 (43)	43/50	4.2 (41)	95	41/50	4.5 (46)	102	46/50	4.2 (42)	95	41/49
82	4.4 (43)	43/50	4.3 (40)	98	40/50	4.4 (41)	100	41/50	4.3 (39)	98	39/49
86	4.4 (40)	40/50	4.4 (40)	100	40/50	4.4 (37)	100	37/50	4.2 (39)	95	39/49
90	4.2 (36)	36/50	3.9 (39)	93	39/50	4.2 (36)	100	36/50	4.0 (38)	95	38/49
94	4.1 (32)	32/50	4.2 (35)	102	35/50	4.3 (35)	105	35/50	4.1 (33)	100	33/49
98	4.4 (29)	28/50	4.5 (31)	102	29/50	4.6 (31)	105	31/50	4.6 (32)	105	32/49
102	4.2 (28)	28/50	4.3 (29)	102	28/50	4.4 (27)	105	27/50	4.8 (27)	114	27/49
104	4.4 (26)	26/50	4.3 (27)	98	27/50	4.7 (25)	107	25/50	5.4 (23)	123	23/49

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

TABLE 26 NEOPLASTIC LESIONS (ORAL CAVITY) INCIDENCE AND STATISTICAL ANALYSIS IN MALE MICE

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : oral cavity				
TUMOUR : squamous cell papilloma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	4/50 (10.0)
Adjusted Rates(b)	0.0	0.0	0.0	9.76
Terminal Rates(c)	0/35 (0.0)	0/42 (0.0)	0/38 (0.0)	3/33 (9.1)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=------			
Prevalence Method(d)	P=0.0003**?			
Combined analysis(d)	P=------			
Cochran-Armitage Test(e)	P=0.0006**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0688
SITE : oral cavity				
TUMOUR : squamous cell carcinnoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	13/50 (26.0)
Adjusted Rates(b)	0.0	0.0	0.0	17.07
Terminal Rates(c)	0/35 (0.0)	0/42 (0.0)	0/38 (0.0)	4/33 (12.1)
Statistical Analysis				
Peto Test				
Standard Method(d)	P<0.0001**?			
Prevalence Method(d)	P<0.0001**?			
Combined analysis(d)	P<0.0001**?			
Cochran-Armitage Test(e)	P<0.0001**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0003**
SITE : oral cavity				
TUMOUR : squamous cell papilloma, squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	16/50 (32.0)
Adjusted Rates(b)	0.0	0.0	0.0	24.39
Terminal Rates(c)	0/35 (0.0)	0/42 (0.0)	0/33 (0.0)	7/33 (21.2)
Statistical Analysis				
Peto Test				
Standard Method(d)	P<0.0001**?			
Prevalence Method(d)	P<0.0001**?			
Combined analysis(d)	P<0.0001**?			
Cochran-Armitage Test(e)	P<0.0001**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P<0.0001**

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

TABLE 27 NEOPLASTIC LESIONS (ORAL CAVITY) INCIDENCE AND STATISTICAL ANALYSIS IN FEMALE MICE

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : oral cavity				
TUMOUR : squamous cell papilloma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	3/49 (6.1)
Adjusted Rates(b)	0.0	0.0	0.0	12.50
Terminal Rates(c)	0/26 (0.0)	0/27 (0.0)	0/25 (0.0)	2/23 (8.7)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=------			
Prevalence Method(d)	P=0.0014**?			
Combined analysis(d)	P=------			
Cochran-Armitage Test(e)	P=0.0027**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.1287
SITE : oral cavity				
TUMOUR : squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	15/49 (30.6)
Adjusted Rates(b)	0.0	0.0	0.0	35.48
Terminal Rates(c)	0/26 (0.0)	0/27 (0.0)	0/25 (0.0)	8/23 (34.8)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.0004**?			
Prevalence Method(d)	P<0.0001**?			
Combined analysis(d)	P<0.0001**?			
Cochran-Armitage Test(e)	P<0.0001**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0001**
SITE : oral cavity				
TUMOUR : squamous cell papilloma, squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	18/49 (36.7)
Adjusted Rates(b)	0.0	0.0	0.0	45.83
Terminal Rates(c)	0/26 (0.0)	0/27 (0.0)	0/25 (0.0)	7/23 (43.5)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.0004**?			
Prevalence Method(d)	P<0.0001**?			
Combined analysis(d)	P<0.0001**?			
Cochran-Armitage Test(e)	P<0.0001**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P<0.0001**

(a):Number of tumor-bearing animals/number of animals examined at the site.
(b):Kaplan-Meire estimate tumor incidence at the end of study after adjusting for intercurrent mortality.
(c):Observed tumor incidence at terminal kill.
(d):Beneth 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 isyond the estimated P-value.
------: There is no data which should be statistical analysis.
Significant difference ; * : P ≦ 0.05 ** : P ≦ 0.01

TABLE 28 NEOPLASTIC LESIONS (ESOPHAGUS) INCIDENCE AND STATISTICAL ANALYSIS IN MALE MICE

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : esophagus				
TUMOUR : squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	7/50 (14.0)
Adjusted Rates(b)	0.0	0.0	0.0	15.15
Terminal Rates(c)	0/35 (0.0)	0/42 (0.0)	0/38 (0.0)	5/33 (15.2)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.1801			
Prevalence Method(d)	P<0.0001**?			
Combined analysis(d)	P<0.0001**?			
Cochran-Armitage Test(e)	P<0.0001**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0101*

TABLE 29 NEOPLASTIC LESIONS (STOMACH) INCIDENCE AND STATISTICAL ANALYSIS MALE MICE

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : stomach				
TUMOUR : squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	1/50 (2.0)	0/50 (0.0)	0/50 (0.0)	7/50 (14.0)
Adjusted Rates(b)	2.86	0.0	0.0	18.18
Terminal Rates(c)	1/35 (2.9)	0/42 (0.0)	0/38 (0.0)	6/33 (18.2)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.1821			
Prevalence Method(d)	P=0.0001**			
Combined analysis(d)	P<0.0001**			
Cochran-Armitage Test(e)	P=0.0001**			
Fisher Exact Test(e)		P=0.4950	P=0.4950	P=0.0430*
SITE : stomach				
TUMOUR : squamous cell papilloma, squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	1/50 (2.0)	0/50 (0.0)	0/50 (0.0)	9/50 (18.0)
Adjusted Rates(b)	2.86	0.0	0.0	24.24
Terminal Rates(c)	1/35 (2.9)	0/42 (0.0)	0/38 (0.0)	8/33 (24.2)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.1821			
Prevalence Method(d)	P=0.0001**			
Combined analysis(d)	P<0.0001**			
Cochran-Armitage Test(e)	P=0.0001**			
Fisher Exact Test(e)		P=0.4950	P=0.4950	P=0.0150*

(a):Number of tumor-bearing animals/number of animals examined at the site.
(b):Kaplan-Meire estimate tumor incidence at the end of study after adjusting for intercurrent mortality.
(c):Observed tumor incidence at terminal kill.
(d):Beneth 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 beyond is the estimated P-value.
------: There is no data which should be statistical analysis.
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

TABLE 30 NEOPLASTIC LESIONS (STOMACH) INCIDENCE AND STATISTICAL ANALYSIS IN FEMALE MICE

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : stomach				
TUMOUR : squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	3/49 (6.1)
Adjusted Rates(b)	0.0	0.0	0.0	4.35
Terminal Rates(c)	0/26 (0.0)	0/27 (0.0)	0/25 (0.0)	1/23 (4.3)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.0146* ?			
Prevalence Method(d)	P=0.1561			
Combined analysis(d)	P=0.0019**?			
Cochran-Armitage Test(e)	P=0.0027**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.1287
SITE : stomach				
TUMOUR : squamous cell papilloma, squamous cell carcinoma				
Tumor Rates				
Overall Rates(a)	0/50 (0.0)	0/50 (0.0)	0/50 (0.0)	4/49 (8.2)
Adjusted Rates(b)	0.0	0.0	0.0	8.70
Terminal Rates(c)	0/26 (0.0)	0/27 (0.0)	0/25 (0.0)	2/23 (8.7)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=0.0146* ?			
Prevalence Method(d)	P=0.0103* ?			
Combined analysis(d)	P=0.0002**?			
Cochran-Armitage Test(e)	P=0.0005**			
Fisher Exact Test(e)		P=0.5000	P=0.5000	P=0.0662**

TABLE 31 NEOPLASTIC LESIONS (LIVER) INCIDENCE AND STATISTICAL ANALYSISIN MALE MICE

Group Name	Control	400 ppm	2000 ppm	10000 ppm
SITE : liver				
TUMOUR : hepatocellular carcinoma				
Tumor Rates				
Overall Rates(a)	13/50 (26.0)	10/50 (20.0)	9/50 (18.0)	4/50 (8.0)
Adjusted Rates(b)	31.43	23.26	23.68	11.76
Terminal Rates(c)	11/35 (31.4)	9/42 (21.4)	9/38 (23.7)	3/33 (9.1)
Statistical Analysis				
Peto Test				
Standard Method(d)	P=1.0000 ?			
Prevalence Method(d)	P=0.9783			
Combined analysis(d)	P=0.9837			
Cochran-Armitage Test(e)	P=0.0243*			
Fisher Exact Test(e)		P=0.3703	P=0.2965	P=0.0371*

(a):Number of tumor-bearing animals/number of animals examined at the site.
(b):Kaplan-Meire estimate tumor incidence at the end of study after adjusting for intercurrent mortality.
(c):Observed tumor incidence at terminal kill.
(d):Beneth 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 beyond the estimated P-value.
------: There is no data which should be statistical analysis.
Significant difference ; * : $P \leq 0.05$ ** : $P \leq 0.01$

Table 32 SELECTED LESIONS OF DIGESTIVE SYSTEM AND LARYNX IN MALE MICE

	neoplastic disease								non neoplastic disease											
	squamous cell papilloma				squamous cell carcinoma				squamous cell hyperplasia				basal cell activation				epithlial dysprasia			
Group(ppm)	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000
Number of examined	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
oral cavity	0	0	0	4	0	0	0	13	0	0	2	13	0	0	1	18	0	0	0	24
esophagus	0	0	0	0	0	0	0	7	0	0	0	2	0	0	0	9	0	0	0	2
stomach	0	0	0	2	1	0	0	7	0	0	0	3	0	0	0	1	0	0	0	1
larynx	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	3	0	0	0	2

Table 33 SELECTED LESIONS OF DIGESTIVE SYSTEM AND LARYNX IN FEMALE MICE

	neoplastic disease								non neoplastic disease											
	squamous cell papilloma				squamous cell carcinoma				squamous cell hyperplasia				basal cell activation				epithlial dysprasia			
Group(ppm)	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000	0	400	2000	10000
Number of examined	50	50	50	49	50	50	50	49	50	50	50	49	50	50	50	49	50	50	50	49
oral cavity	0	0	0	3	0	0	0	15	0	0	1	6	0	0	1	17	0	0	0	17
esophagus	0	0	1	0	0	0	0	1	0	0	0	2	0	0	0	15	0	0	0	7
stomach	0	0	0	1	0	0	0	3	0	2	0	4	0	0	0	1	0	0	0	0
larynx	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6	0	0	0	3

TABLE 34 CAUSE OF DEATH IN MICE

	Male				Female			
Group	Control	400ppm	2000ppm	10000ppm	Control	400ppm	2000ppm	10000ppm
Number of dead/moribund animal	15	8	12	17	24	23	25	26
No microscopical confirmation	0	0	1	0	0	1	1	1
Cardiovascular lesion	0	0	0	0	0	0	1	0
Urinary system lesion	0	0	0	0	0	0	0	1
Circulatory disorder	0	0	0	0	1	1	0	0
Urinary retention	3	1	0	1	0	0	1	0
Arteritis	0	0	0	0	0	0	0	1
Hydronephrosis	2	0	0	1	1	0	1	1
Tumor death : leukemia	1	3	3	1	7	9	11	9
: subcutis	0	1	0	0	0	1	0	0
: larynx	0	0	0	1	0	0	0	1
: lung	1	0	2	1	0	1	0	0
: spleen	2	0	1	0	0	0	0	0
: oral cavity	0	0	0	6	0	0	0	4
: toung	0	0	0	0	1	0	0	0
: salivary gland	0	0	0	0	1	0	0	0
: esophagus	0	0	0	1	0	0	0	0
: stomach	0	0	0	1	0	0	0	2
: liver	1	2	2	3	0	1	1	0
: urinary bladder	0	0	1	0	0	0	0	0
: pituitary gland	2	0	0	0	2	0	1	1
: epididymis	1	1	0	1	-	-	-	-
: seminal vesicle	0	0	1	0	-	-	-	-
: ovary	-	-	-	-	0	0	0	1
: uterus	-	-	-	-	9	8	7	4
: mammary gland	0	0	0	0	1	1	0	0
: peripheral nerve	1	0	0	1	0	0	0	0
: muscle	0	0	1	1	0	0	1	0
: bone	0	0	0	0	1	0	0	0
: retroperitoneum	1	0	0	0	0	0	0	0