メタリルクロライドのラット及びマウスを用いた
吸 入 に よ る が ん 原 性 予 備 試 験 報 告 書

試験番号

2 週間試験：ラット/0195；マウス/0196
13 週間試験：ラット/0208；マウス/0209

TABLES

TABLES

TABLE 1 EXPERIMENTAL DESIGN AND MATERIALS AND METHODS IN THE INHALATION STUDIES OF METHALLYL CHLORIDE

Two-Week Studies	Thirteen-Week Studies
<Method of Administration>	
Inhalation	Inhalation
<Number of Groups>	
Male 6, Female 6	Male 6, Female 6
<Size of Groups>	
10 males and 10 females of each species	10 males and 10 females of each species
<Animals>	
Strain and Species	
F344/DuCrj(Fischer)rat	F344/DuCrj(Fischer)rat
Crj:BDF1mouse	Crj:BDF1mouse
Animal Source	
Charles River Japan, Inc.	Charles River Japan, Inc.
Duration Held Before Study	
2 wk	2 wk
Age When Placed on Study	
6 wk	6 wk
Age When Killed	
8 wk	19 wk
<Exposure Concentrations>	
Rat, Mouse: 0, 10, 30, 90, 270 or 810ppm	Rat, Mouse: 0, 31, 63, 125, 250 or 500ppm
<Duration of Exposure>	
5 d/wk for 2 wk	5 d/wk for 13 wk
<Animal Maintenance>	
Feed	
CRF-1 (Oriental Yeast Co., Ltd.) Sterilized by γ-ray Available *ad libitum*	Same as two-week studies
Water	
Filtrated and sterilized by ultraviolet rays Automatic watering system Available *ad libitum*	Same as two-week studies
Animals per Cage	
Single (stainless steel wire)	Same as two-week studies
Animal Room Environment	
Barrier system Temperature: 21±2℃ Humidity: 60±10% Fluorescent light: 12 h/d Room air changes: 15-17 changes/h	Same as two-week studies
Chamber Environment	
Temperature: 20-24℃ Humidity: 30-70% Fluorescent light: 12 h/d Room air changes: 12 changes/h	Same as two-week studies
<Type and Frequency of Observation>	
Clinical Sign	
Observed 2 per d (1 per d without Exposure day)	Observed 2 per d
Body weight	
Weighed 0-0, 1-1, 1-7 and 2-7(wk-d)	Weighed 1 per wk
Food Consumption	
Weighed 1-7 and 2-7(wk-d)	Weighed 1 per wk

TABLE 1 EXPERIMENTAL DESIGN AND MATERIALS AND METHODS IN THE INHALATION STUDIES OF METHALLYL CHLORIDE(Continued)

Two-Week Studies	Thirteen-Week Studies
<Hematology>	
Red blood cell, Hemoglobin, Hematocrit, Mean corpuscular volume(MCV), Mean corpuscular Hemoglobin(MCH), Mean corpuscular Hemoglobin concentration(MCHC), Platelet, White blood cell(WBC), Differential WBC	Red blood cell, 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 raito, T-bilirubin, Glucose, T-cholesterol, Glutamic oxaloacetic transaminase(GOT), Glutamic pyruvic transaminase(GPT), Lactate dehydrogenase(LDH), Creatine phosphokinase(CPK), Urea nitrogen, Sodium, Potassium, Chloride, Calcium, Inorganic phosphorus	Total protein, Albumin, A/G raito, T-bilirubin, Glucose, T-cholesterol, Triglyceride, Phospholipid<rat only>, Glutamic oxaloacetic transaminase(GOT), Glutamic pyruvic transaminase(GPT), Lactate dehydrogenase(LDH), Alkaline phosphatase(ALP), γ-Glutamil transpeptidase(G-GTP)<rat only>, Creatine phosphokinase(CPK), Urea nitrogen, Creatinine<rat only>, Sodium, Potassium, Chloride, Calcium, Inorganic phosphorus
<Urinalysis>	
None	pH, Protein, Glucose, Ketone body, Bilirubin<rat only>, Occult blood, Urobilinogen
<Necropsy>	
Necropsy performed on all animals	Same as two-week studies
<Organ weight>	
None	Organ weight measurement performed on scheduled sacrificed animals The following organs were weighed: brain, lung, liver, spleen, heart, kidney, adrenal, testis, ovary, thymus
<Histopathologic Examination>	
Histopathologic examination performed on at least two animals per sex per groups	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	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 RAT (TWO-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	10 ppm Av.Wt.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.Wt.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.Wt.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.Wt.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.Wt.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
0-0	126 (10)	10/10	125 (10)	99	10/10	126 (10)	100	10/10	127 (10)	101	10/10	126 (10)	100	10/10	126 (10)	100	10/10
1-1	128 (10)	10/10	128 (10)	100	10/10	129 (10)	101	10/10	129 (10)	101	10/10	122 (10)	95	10/10	106 (10)	83	10/10
1-7	142 (10)	10/10	143 (10)	101	10/10	144 (10)	101	10/10	146 (10)	103	10/10	138 (10)	97	10/10	109 (2)	77	2/10
2-7	163 (10)	10/10	163 (10)	100	10/10	164 (10)	101	10/10	169 (10)	104	10/10	156 (10)	96	10/10	- (-)	-	0/10

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

TABLE 3 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN FEMALE RAT (TWO-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	10 ppm Av.Wt.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.Wt.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.Wt.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.Wt.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.Wt.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
0-0	100 (10)	10/10	102 (10)	102	10/10	101 (10)	101	10/10	102 (10)	102	10/10	101 (10)	101	10/10	101 (10)	101	10/10
1-1	102 (10)	10/10	103 (10)	101	10/10	103 (10)	101	10/10	102 (10)	100	10/10	99 (10)	97	10/10	90 (10)	88	10/10
1-7	110 (10)	10/10	111 (10)	101	10/10	111 (10)	101	10/10	113 (10)	103	10/10	110 (10)	100	10/10	- (-)	-	0/10
2-7	122 (10)	10/10	125 (10)	102	10/10	124 (10)	102	10/10	128 (10)	105	10/10	122 (10)	100	10/10	- (-)	-	0/10

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

(Study No.0195,0196,0208,0209)

TABLE 4 FOOD CONSUMPTION IN MALE RAT (TWO-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	10 ppm Av.FC.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.FC.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.FC.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.FC.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.FC.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
1-7	15.8 (10)	10/10	15.6 (10)	99	10/10	15.4 (10)	97	10/10	15.2 (10)	96	10/10	13.7 (10)	87	10/10	6.9 (2)	44	2/10
2-7	16.0 (10)	10/10	15.8 (10)	99	10/10	15.6 (10)	98	10/10	16.1 (10)	101	10/10	15.1 (10)	94	10/10	- (-)	-	0/10

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

TABLE 5 FOOD CONSUMPTION IN FEMALE RAT (TWO-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	10 ppm Av.FC.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.FC.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.FC.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.FC.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.FC.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
1-7	12.1 (10)	10/10	12.3 (10)	102	10/10	12.1 (10)	100	10/10	12.2 (10)	101	10/10	12.2 (10)	101	10/10	- (-)	-	0/10
2-7	12.2 (10)	10/10	12.8 (10)	105	10/10	12.1 (10)	99	10/10	12.9 (10)	106	10/10	12.6 (10)	103	10/10	- (-)	-	0/10

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

TABLE 6 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN MALE RAT (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	31 ppm Av.Wt.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.Wt.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.Wt.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.Wt.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.Wt.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
0-0	120 (10)	10/10	120 (10)	100	10/10	120 (10)	100	10/10	120 (10)	100	10/10	120 (10)	100	10/10	121 (10)	101	10/10
1-7	144 (10)	10/10	143 (10)	99	10/10	144 (10)	100	10/10	145 (10)	101	10/10	139 (10)	97	10/10	127 (10)	88	10/10
2-7	172 (10)	10/10	170 (10)	99	10/10	171 (10)	99	10/10	172 (10)	100	10/10	165 (10)	96	10/10	148 (10)	86	10/10
3-7	192 (10)	10/10	188 (10)	98	10/10	189 (10)	98	10/10	188 (10)	98	10/10	180 (10)	94	10/10	154 (10)	80	10/10
4-7	219 (10)	10/10	214 (10)	98	10/10	211 (10)	96	10/10	208 (10)	95	10/10	199 (10)	91	10/10	165 (10)	75	10/10
5-7	240 (10)	10/10	230 (10)	96	10/10	228 (10)	95	10/10	224 (10)	93	10/10	214 (10)	89	10/10	158 (10)	66	10/10
6-7	257 (10)	10/10	245 (10)	95	10/10	244 (10)	95	10/10	240 (10)	93	10/10	226 (10)	88	10/10	156 (9)	61	9/10
7-7	271 (10)	10/10	260 (10)	96	10/10	259 (10)	96	10/10	255 (10)	94	10/10	240 (10)	89	10/10	163 (7)	60	7/10
8-7	285 (10)	10/10	273 (10)	96	10/10	273 (10)	96	10/10	268 (10)	94	10/10	254 (10)	89	10/10	172 (7)	60	7/10
9-7	299 (10)	10/10	284 (10)	95	10/10	285 (10)	95	10/10	282 (10)	94	10/10	266 (10)	89	10/10	181 (7)	61	7/10
10-7	311 (10)	10/10	292 (10)	94	10/10	295 (10)	95	10/10	292 (10)	94	10/10	277 (10)	89	10/10	184 (7)	59	7/10
11-7	321 (10)	10/10	302 (10)	94	10/10	305 (10)	95	10/10	301 (10)	94	10/10	286 (10)	89	10/10	180 (7)	56	7/10
12-7	328 (10)	10/10	309 (10)	94	10/10	313 (10)	95	10/10	310 (10)	95	10/10	296 (10)	90	10/10	173 (7)	53	7/10
13-6	331 (10)	10/10	315 (10)	95	10/10	319 (10)	96	10/10	314 (10)	95	10/10	302 (10)	91	10/10	174 (6)	53	6/10

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

TABLE 7 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN FEMALE RAT (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	31 ppm Av.Wt.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.Wt.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.Wt.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.Wt.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.Wt.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
0-0	98 (10)	10/10	98 (10)	100	10/10	98 (10)	100	10/10	98 (10)	100	10/10	98 (10)	100	10/10	98 (10)	100	10/10
1-7	111 (10)	10/10	110 (10)	99	10/10	111 (10)	100	10/10	112 (10)	101	10/10	108 (10)	97	10/10	101 (10)	91	10/10
2-7	124 (10)	10/10	126 (10)	102	10/10	126 (10)	102	10/10	128 (10)	103	10/10	122 (10)	98	10/10	114 (10)	92	10/10
3-7	129 (10)	10/10	131 (10)	102	10/10	133 (10)	103	10/10	134 (10)	104	10/10	128 (10)	99	10/10	117 (10)	91	10/10
4-7	141 (10)	10/10	144 (10)	102	10/10	143 (10)	101	10/10	145 (10)	103	10/10	137 (10)	97	10/10	123 (10)	87	10/10
5-7	148 (10)	10/10	150 (10)	101	10/10	153 (10)	103	10/10	150 (10)	101	10/10	144 (10)	97	10/10	121 (10)	82	10/10
6-7	153 (10)	10/10	157 (10)	103	10/10	156 (10)	102	10/10	157 (10)	103	10/10	150 (10)	98	10/10	124 (9)	81	9/10
7-7	159 (10)	10/10	162 (10)	102	10/10	163 (10)	103	10/10	162 (10)	102	10/10	156 (10)	98	10/10	124 (9)	78	9/10
8-7	165 (10)	10/10	167 (10)	101	10/10	166 (10)	101	10/10	166 (10)	101	10/10	160 (10)	97	10/10	125 (9)	76	9/10
9-7	170 (10)	10/10	171 (10)	101	10/10	169 (10)	99	10/10	171 (10)	101	10/10	164 (10)	96	10/10	128 (9)	75	9/10
10-7	175 (10)	10/10	175 (10)	100	10/10	173 (10)	99	10/10	175 (10)	100	10/10	167 (10)	95	10/10	129 (9)	74	9/10
11-7	180 (10)	10/10	180 (10)	100	10/10	178 (10)	99	10/10	179 (10)	99	10/10	172 (10)	96	10/10	128 (9)	71	9/10
12-7	184 (10)	10/10	186 (10)	101	10/10	182 (10)	99	10/10	181 (10)	98	10/10	177 (10)	96	10/10	127 (9)	69	9/10
13-6	183 (10)	10/10	185 (10)	101	10/10	183 (10)	100	10/10	183 (10)	100	10/10	177 (10)	97	10/10	127 (8)	69	8/10

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

TABLE 8 FOOD CONSUMPTION IN MALE RAT (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	31 ppm Av.FC.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.FC.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.FC.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.FC.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.FC.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
1-7	14.1 (10)	10/10	13.9 (10)	99	10/10	14.2 (10)	101	10/10	13.6 (10)	96	10/10	12.6 (10)	89	10/10	11.6 (10)	82	10/10
2-7	15.3 (10)	10/10	15.2 (10)	99	10/10	15.7 (10)	103	10/10	16.0 (10)	105	10/10	15.4 (10)	101	10/10	15.0 (10)	98	10/10
3-7	15.8 (10)	10/10	15.3 (10)	97	10/10	16.0 (10)	101	10/10	15.2 (10)	96	10/10	14.4 (10)	91	10/10	14.2 (10)	90	10/10
4-7	16.5 (10)	10/10	15.7 (10)	95	10/10	15.4 (10)	93	10/10	15.1 (10)	92	10/10	15.1 (10)	92	10/10	14.7 (10)	89	10/10
5-7	17.6 (10)	10/10	16.6 (10)	94	10/10	15.9 (10)	90	10/10	15.5 (10)	88	10/10	15.4 (10)	88	10/10	12.9 (10)	73	10/10
6-7	17.4 (10)	10/10	16.3 (10)	94	10/10	16.3 (10)	94	10/10	15.6 (10)	90	10/10	15.5 (10)	89	10/10	11.6 (9)	67	9/10
7-7	17.6 (10)	10/10	16.9 (10)	96	10/10	16.7 (10)	95	10/10	16.1 (10)	91	10/10	15.9 (10)	90	10/10	9.4 (9)	53	7/10
8-7	17.4 (10)	10/10	16.6 (10)	95	10/10	16.8 (10)	97	10/10	16.5 (10)	95	10/10	16.2 (10)	93	10/10	13.2 (7)	76	7/10
9-7	17.9 (10)	10/10	16.9 (10)	94	10/10	17.2 (10)	96	10/10	17.0 (10)	95	10/10	16.7 (10)	93	10/10	13.8 (7)	77	7/10
10-7	17.7 (10)	10/10	16.2 (10)	92	10/10	16.7 (10)	94	10/10	16.5 (10)	93	10/10	16.4 (10)	93	10/10	13.8 (7)	78	7/10
11-7	17.7 (10)	10/10	16.5 (10)	93	10/10	17.3 (10)	98	10/10	16.5 (10)	93	10/10	16.7 (10)	94	10/10	13.7 (7)	77	7/10
12-7	17.6 (10)	10/10	16.5 (10)	94	10/10	17.1 (10)	97	10/10	16.3 (10)	93	10/10	16.6 (10)	94	10/10	11.3 (7)	64	7/10
13-6	16.1 (10)	10/10	15.4 (10)	96	10/10	16.8 (10)	104	10/10	16.3 (10)	101	10/10	16.9 (10)	105	10/10	11.1 (7)	69	6/10

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

TABLE 9 FOOD CONSUMPTION IN FEMALE RAT (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	31 ppm Av.FC.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.FC.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.FC.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.FC.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.FC.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
1-7	11.2 (10)	10/10	11.3 (10)	101	10/10	11.6 (10)	104	10/10	11.7 (9)	104	10/10	10.8 (10)	96	10/10	9.9 (10)	88	10/10
2-7	11.8 (10)	10/10	12.2 (10)	103	10/10	12.4 (10)	105	10/10	13.3 (10)	113	10/10	12.4 (10)	105	10/10	11.9 (10)	101	10/10
3-7	11.4 (10)	10/10	12.0 (10)	105	10/10	12.5 (10)	110	10/10	12.2 (10)	107	10/10	10.9 (10)	96	10/10	11.6 (10)	102	10/10
4-7	11.4 (10)	10/10	11.6 (10)	102	10/10	11.7 (10)	103	10/10	11.7 (10)	103	10/10	11.8 (10)	104	10/10	12.2 (10)	107	10/10
5-7	11.8 (10)	10/10	12.6 (10)	107	10/10	12.6 (10)	107	10/10	12.0 (10)	102	10/10	11.7 (10)	99	10/10	12.1 (10)	103	10/10
6-7	11.4 (10)	10/10	12.0 (10)	105	10/10	11.7 (10)	103	10/10	12.0 (10)	105	10/10	11.6 (10)	102	10/10	10.8 (10)	95	9/10
7-7	11.8 (10)	10/10	12.1 (10)	103	10/10	11.7 (10)	99	10/10	11.8 (10)	100	10/10	11.6 (10)	98	10/10	11.0 (9)	93	9/10
8-7	11.6 (10)	10/10	11.6 (10)	100	10/10	11.3 (10)	97	10/10	11.5 (10)	99	10/10	11.3 (10)	97	10/10	11.2 (9)	97	9/10
9-7	11.7 (10)	10/10	12.0 (10)	103	10/10	11.2 (10)	96	10/10	11.5 (10)	98	10/10	11.2 (10)	96	10/10	11.2 (9)	96	9/10
10-7	11.5 (10)	10/10	11.3 (10)	98	10/10	11.0 (10)	96	10/10	11.2 (10)	97	10/10	11.0 (10)	96	10/10	10.2 (9)	89	9/10
11-7	11.6 (10)	10/10	11.4 (10)	98	10/10	11.4 (10)	98	10/10	11.4 (10)	98	10/10	11.0 (10)	95	10/10	11.1 (9)	96	9/10
12-7	11.9 (10)	10/10	12.2 (10)	103	10/10	11.4 (10)	96	10/10	11.2 (10)	94	10/10	11.8 (10)	99	10/10	10.4 (9)	87	9/10
13-6	10.6 (10)	10/10	10.9 (10)	103	10/10	10.6 (10)	100	10/10	11.2 (10)	106	10/10	11.2 (10)	106	10/10	9.2 (9)	87	8/10

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

TABLE 10 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN MALE MOUSE (TWO-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	10 ppm Av.Wt.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.Wt.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.Wt.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.Wt.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.Wt.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
0-0	23.0 (10)	10/10	23.2 (10)	101	10/10	22.9 (10)	100	10/10	22.9 (10)	100	10/10	23.2 (10)	101	10/10	22.7 (10)	99	1/10
1-1	23.4 (10)	10/10	23.0 (10)	98	10/10	23.0 (10)	98	10/10	23.0 (10)	98	10/10	23.1 (10)	99	10/10	- (-)	-	0/10
1-7	24.6 (10)	10/10	23.5 (10)	96	10/10	24.1 (10)	98	10/10	23.8 (10)	97	10/10	23.7 (10)	96	10/10	- (-)	-	0/10
2-7	25.4 (10)	10/10	24.6 (10)	97	10/10	25.2 (10)	99	10/10	25.1 (10)	99	10/10	24.4 (10)	96	10/10	- (-)	-	0/10

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

TABLE 11 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN FEMALE MOUSE (TWO-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	10 ppm Av.Wt.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.Wt.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.Wt.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.Wt.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.Wt.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
0-0	19.0 (10)	10/10	18.9 (10)	99	10/10	19.1 (10)	101	10/10	19.1 (10)	101	10/10	19.0 (10)	100	10/10	18.9 (10)	99	10/10
1-1	18.6 (10)	10/10	18.6 (10)	100	10/10	19.0 (10)	102	10/10	18.8 (10)	101	10/10	18.8 (10)	101	10/10	17.0 (9)	91	9/10
1-7	20.2 (10)	10/10	19.7 (10)	98	10/10	20.3 (10)	100	10/10	20.3 (10)	100	10/10	19.4 (10)	96	10/10	17.3 (3)	86	3/10
2-7	21.1 (10)	10/10	20.9 (10)	99	10/10	21.3 (10)	101	10/10	20.7 (10)	98	10/10	20.6 (10)	98	10/10	18.3 (3)	87	3/10

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

TABLE 12 FOOD CONSUMPTION IN MALE MOUSE (TWO-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	10 ppm Av.FC.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.FC.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.FC.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.FC.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.FC.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
1-7	4.5 (10)	10/10	4.1 (10)	91	10/10	4.5 (10)	100	10/10	4.0 (10)	89	10/10	3.9 (10)	87	10/10	- (-)	-	0/10
2-7	4.4 (10)	10/10	4.5 (10)	102	10/10	4.5 (10)	102	10/10	4.5 (10)	102	10/10	4.2 (10)	95	10/10	- (-)	-	0/10

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

TABLE 13 FOOD CONSUMPTION IN FEMALE MOUSE (TWO-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	10 ppm Av.FC.	10 ppm % of cont. <10>	10 ppm No.of Surviv.	30 ppm Av.FC.	30 ppm % of cont. <10>	30 ppm No.of Surviv.	90 ppm Av.FC.	90 ppm % of cont. <10>	90 ppm No.of Surviv.	270 ppm Av.FC.	270 ppm % of cont. <10>	270 ppm No.of Surviv.	810 ppm Av.FC.	810 ppm % of cont. <10>	810 ppm No.of Surviv.
1-7	3.7 (10)	10/10	3.7 (10)	100	10/10	3.8 (10)	103	10/10	3.6 (10)	97	10/10	3.5 (10)	95	10/10	2.4 (3)	65	3/10
2-7	3.9 (10)	10/10	3.9 (10)	100	10/10	4.1 (10)	105	10/10	4.0 (10)	103	10/10	3.8 (10)	97	10/10	3.8 (3)	97	3/10

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

TABLE 14 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN MALE MOUSE (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	31 ppm Av.Wt.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.Wt.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.Wt.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.Wt.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.Wt.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
0-0	22.8 (10)	10/10	22.6 (10)	99	10/10	22.6 (10)	99	10/10	22.6 (10)	99	10/10	22.5 (10)	99	10/10	22.6 (10)	99	10/10
1-7	24.3 (10)	10/10	23.8 (10)	98	10/10	23.9 (10)	98	10/10	23.7 (10)	98	10/10	23.3 (10)	96	10/10	- (-)	-	0/10
2-7	25.3 (10)	10/10	24.5 (10)	97	10/10	24.6 (10)	97	10/10	24.5 (10)	97	10/10	24.2 (10)	96	10/10	- (-)	-	0/10
3-7	25.8 (10)	10/10	25.2 (10)	98	10/10	25.4 (10)	98	10/10	24.6 (10)	95	10/10	24.7 (10)	96	10/10	- (-)	-	0/10
4-7	26.2 (10)	10/10	25.5 (10)	97	10/10	25.8 (10)	98	10/10	25.3 (10)	97	10/10	25.4 (10)	97	10/10	- (-)	-	0/10
5-7	27.4 (10)	10/10	26.3 (10)	96	10/10	26.5 (10)	97	10/10	25.8 (10)	94	10/10	25.4 (10)	93	10/10	- (-)	-	0/10
6-7	28.3 (10)	10/10	26.9 (10)	95	10/10	27.2 (10)	96	10/10	26.3 (10)	93	10/10	26.5 (10)	94	10/10	- (-)	-	0/10
7-7	29.3 (10)	10/10	28.1 (10)	96	10/10	27.9 (10)	95	10/10	27.3 (10)	93	10/10	27.3 (10)	93	10/10	- (-)	-	0/10
8-7	30.0 (10)	10/10	28.2 (10)	94	10/10	28.6 (10)	95	10/10	27.4 (10)	91	10/10	26.7 (10)	89	10/10	- (-)	-	0/10
9-7	30.8 (10)	10/10	28.6 (10)	93	10/10	29.4 (10)	95	10/10	27.9 (10)	91	10/10	27.9 (10)	91	10/10	- (-)	-	0/10
10-7	31.4 (10)	10/10	29.3 (10)	93	10/10	29.7 (10)	95	10/10	28.0 (10)	89	10/10	28.3 (10)	90	10/10	- (-)	-	0/10
11-7	32.2 (10)	10/10	30.0 (10)	93	10/10	30.4 (10)	94	10/10	28.4 (10)	88	10/10	28.8 (10)	89	10/10	- (-)	-	0/10
12-7	32.0 (10)	10/10	30.5 (10)	95	10/10	30.7 (10)	96	10/10	28.6 (10)	89	10/10	29.5 (10)	92	10/10	- (-)	-	0/10
13-6	32.8 (10)	10/10	31.3 (10)	95	10/10	31.2 (10)	95	10/10	29.6 (10)	90	10/10	29.6 (10)	90	10/10	- (-)	-	0/10

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

TABLE 15 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES IN FEMALE MOUSE (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.Wt.	Control No.of Surviv. <10>	31 ppm Av.Wt.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.Wt.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.Wt.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.Wt.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.Wt.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
0-0	18.4 (10)	10/10	18.2 (10)	99	10/10	18.2 (10)	99	10/10	18.2 (10)	99	10/10	18.3 (10)	99	10/10	18.3 (10)	99	10/10
1-7	19.9 (10)	10/10	19.6 (10)	98	10/10	19.4 (10)	97	10/10	19.6 (10)	98	10/10	19.5 (10)	98	10/10	14.7 (2)	74	2/10
2-7	20.4 (10)	10/10	20.2 (10)	99	10/10	20.0 (10)	98	10/10	20.3 (10)	100	10/10	19.9 (10)	98	10/10	19.0 (1)	93	1/10
3-7	21.1 (10)	10/10	21.1 (10)	100	10/10	20.8 (10)	99	10/10	20.6 (10)	98	10/10	20.8 (10)	99	10/10	19.0 (1)	90	1/10
4-7	21.5 (10)	10/10	21.7 (10)	101	10/10	21.2 (10)	99	10/10	21.3 (10)	99	10/10	21.5 (10)	100	10/10	20.0 (1)	93	1/10
5-7	22.2 (10)	10/10	22.2 (10)	100	10/10	21.9 (10)	99	10/10	22.0 (10)	99	10/10	21.7 (10)	98	10/10	19.6 (1)	88	1/10
6-7	22.7 (10)	10/10	22.4 (10)	99	10/10	22.4 (10)	99	10/10	21.9 (10)	96	10/10	21.7 (10)	96	10/10	20.7 (1)	91	1/10
7-7	23.3 (10)	10/10	23.4 (10)	100	10/10	23.2 (10)	100	10/10	23.1 (10)	99	10/10	22.8 (10)	98	10/10	21.6 (1)	93	1/10
8-7	23.7 (10)	10/10	24.2 (10)	102	10/10	23.5 (10)	99	10/10	23.1 (10)	97	10/10	23.1 (10)	97	10/10	21.9 (1)	92	1/10
9-7	23.8 (10)	10/10	24.1 (10)	101	10/10	23.4 (10)	98	10/10	23.0 (10)	97	10/10	23.0 (10)	97	10/10	21.6 (1)	91	1/10
10-7	23.8 (10)	10/10	24.0 (10)	101	10/10	23.5 (10)	99	10/10	23.7 (10)	100	10/10	23.4 (10)	98	10/10	21.8 (1)	92	1/10
11-7	24.4 (10)	10/10	24.3 (10)	100	10/10	24.0 (10)	98	10/10	24.1 (10)	99	10/10	24.1 (10)	99	10/10	22.1 (1)	91	1/10
12-7	24.3 (10)	10/10	24.7 (10)	102	10/10	24.3 (10)	100	10/10	24.4 (10)	100	10/10	24.0 (10)	99	10/10	22.5 (1)	93	1/10
13-6	25.0 (10)	10/10	24.8 (10)	99	10/10	24.5 (10)	98	10/10	23.9 (10)	96	10/10	24.2 (10)	97	10/10	22.3 (1)	89	1/10

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

TABLE 16 FOOD CONSUMPTION IN MALE MOUSE (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	31 ppm Av.FC.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.FC.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.FC.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.FC.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.FC.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
1-7	4.1 (10)	10/10	4.1 (10)	100	10/10	4.0 (10)	98	10/10	3.7 (10)	90	10/10	3.9 (10)	95	10/10	0.1 (10)	2	0/10
2-7	4.0 (10)	10/10	4.1 (10)	103	10/10	3.9 (10)	98	10/10	4.1 (10)	103	10/10	4.0 (10)	100	10/10	- (-)	-	0/10
3-7	4.1 (10)	10/10	4.1 (10)	100	10/10	4.1 (10)	100	10/10	4.0 (10)	98	10/10	3.9 (10)	95	10/10	- (-)	-	0/10
4-7	4.2 (10)	10/10	4.3 (10)	102	10/10	4.3 (10)	102	10/10	4.3 (10)	102	10/10	4.1 (10)	98	10/10	- (-)	-	0/10
5-7	4.2 (10)	10/10	4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.2 (10)	100	10/10	4.1 (10)	98	10/10	- (-)	-	0/10
6-7	4.4 (10)	10/10	4.3 (10)	98	10/10	4.5 (10)	102	10/10	4.3 (10)	98	10/10	4.3 (10)	98	10/10	- (-)	-	0/10
7-7	4.5 (10)	10/10	4.4 (10)	98	10/10	4.5 (10)	100	10/10	4.4 (10)	98	10/10	4.3 (10)	96	10/10	- (-)	-	0/10
8-7	4.5 (10)	10/10	4.3 (10)	96	10/10	4.5 (10)	100	10/10	4.5 (10)	100	10/10	4.0 (10)	89	10/10	- (-)	-	0/10
9-7	4.7 (10)	10/10	4.5 (10)	96	10/10	4.7 (10)	100	10/10	4.5 (10)	96	10/10	4.6 (10)	98	10/10	- (-)	-	0/10
10-7	4.5 (10)	10/10	4.5 (10)	100	10/10	4.6 (10)	102	10/10	4.2 (10)	93	10/10	4.2 (10)	93	10/10	- (-)	-	0/10
11-7	4.5 (10)	10/10	4.5 (10)	100	10/10	4.5 (10)	100	10/10	4.3 (10)	96	10/10	4.3 (10)	96	10/10	- (-)	-	0/10
12-7	4.4 (10)	10/10	4.4 (10)	100	10/10	4.5 (10)	102	10/10	4.2 (10)	95	10/10	4.3 (10)	98	10/10	- (-)	-	0/10
13-6	4.3 (10)	10/10	4.3 (10)	100	10/10	4.3 (10)	100	10/10	4.2 (10)	98	10/10	4.1 (10)	95	10/10	- (-)	-	0/10

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

TABLE 17 FOOD CONSUMPTION IN FEMALE MOUSE (THIRTEEN-WEEK STUDY)

Week-Day on Study	Control Av.FC.	Control No.of Surviv. <10>	31 ppm Av.FC.	31 ppm % of cont. <10>	31 ppm No.of Surviv.	63 ppm Av.FC.	63 ppm % of cont. <10>	63 ppm No.of Surviv.	125 ppm Av.FC.	125 ppm % of cont. <10>	125 ppm No.of Surviv.	250 ppm Av.FC.	250 ppm % of cont. <10>	250 ppm No.of Surviv.	500 ppm Av.FC.	500 ppm % of cont. <10>	500 ppm No.of Surviv.
1-7	3.6 (10)	10/10	3.5 (10)	97	10/10	3.6 (10)	100	10/10	3.5 (10)	97	10/10	3.2 (10)	89	10/10	0.6 (9)	17	2/10
2-7	3.6 (10)	10/10	3.5 (10)	97	10/10	3.7 (10)	103	10/10	3.7 (10)	103	10/10	3.4 (10)	94	10/10	2.9 (2)	81	1/10
3-7	3.8 (10)	10/10	3.7 (10)	97	10/10	3.9 (10)	103	10/10	3.7 (10)	97	10/10	3.5 (10)	92	10/10	3.3 (1)	87	1/10
4-7	3.9 (10)	10/10	3.9 (10)	100	10/10	4.0 (10)	103	10/10	3.8 (10)	97	10/10	3.7 (10)	95	10/10	4.0 (1)	103	1/10
5-7	3.9 (10)	10/10	3.9 (10)	100	10/10	4.1 (10)	105	10/10	3.9 (10)	100	10/10	3.6 (10)	92	10/10	3.7 (1)	95	1/10
6-7	4.1 (10)	10/10	4.0 (10)	98	10/10	4.3 (10)	105	10/10	4.0 (10)	98	10/10	3.7 (10)	90	10/10	3.9 (1)	95	1/10
7-7	4.3 (10)	10/10	4.2 (10)	98	10/10	4.5 (10)	105	10/10	4.2 (10)	98	10/10	3.8 (10)	88	10/10	3.8 (1)	88	1/10
8-7	4.4 (10)	10/10	4.2 (10)	95	10/10	4.5 (10)	102	10/10	4.3 (10)	98	10/10	3.8 (10)	86	10/10	3.8 (1)	86	1/10
9-7	4.5 (10)	10/10	4.1 (10)	91	10/10	4.6 (10)	102	10/10	4.4 (10)	98	10/10	3.8 (10)	84	10/10	3.7 (1)	82	1/10
10-7	4.4 (10)	10/10	4.0 (10)	91	10/10	4.4 (10)	100	10/10	4.2 (10)	95	10/10	3.8 (10)	86	10/10	3.6 (1)	82	1/10
11-7	4.4 (10)	10/10	4.1 (10)	93	10/10	4.5 (10)	102	10/10	4.2 (10)	95	10/10	3.9 (10)	89	10/10	3.7 (1)	84	1/10
12-7	4.3 (10)	10/10	4.1 (10)	95	10/10	4.4 (10)	102	10/10	4.1 (10)	95	10/10	3.9 (10)	91	10/10	3.8 (1)	88	1/10
13-6	4.4 (10)	10/10	4.0 (10)	91	10/10	4.2 (10)	95	10/10	4.0 (10)	91	10/10	3.7 (10)	84	10/10	3.5 (1)	80	1/10

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