1，2 - ジクロロプロパンのマウスを用いた
吸 入 に よ る 1 3 週 間 毒 性 試 験 報 告 書

試験番号：0436

TABLES

TABLES

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TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

	0ppm		50ppm			100ppm			200ppm			300ppm			400ppm		
Week-Day on Study	Av.Wt.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>
0-0	23.0 (10)	10/10	23.0 (10)	100	10/10	23.1 (10)	100	10/10	23.0 (10)	100	10/10	23.0 (10)	100	10/10	23.1 (10)	100	10/10
1-7	24.6 (10)	10/10	24.8 (10)	101	10/10	24.7 (10)	100	10/10	23.5 (10)	96	10/10	22.5 (9)	91	9/10	22.4 (4)	91	4/10
2-7	25.6 (10)	10/10	25.8 (10)	101	10/10	25.0 (10)	98	10/10	24.8 (10)	97	10/10	24.6 (8)	96	8/10	24.6 (4)	96	4/10
3-7	26.2 (10)	10/10	27.1 (10)	103	10/10	26.0 (10)	99	10/10	25.6 (10)	98	10/10	25.2 (8)	96	8/10	24.2 (4)	92	4/10
4-7	26.9 (10)	10/10	27.4 (10)	102	10/10	26.9 (10)	100	10/10	26.6 (10)	99	10/10	26.3 (8)	98	8/10	25.4 (4)	94	4/10
5-7	27.7 (10)	10/10	28.2 (10)	102	10/10	27.0 (10)	97	10/10	26.8 (10)	97	10/10	25.9 (8)	94	8/10	25.6 (4)	92	4/10
6-7	28.2 (10)	10/10	28.9 (10)	102	10/10	27.6 (10)	98	10/10	27.3 (10)	97	10/10	26.4 (8)	94	8/10	25.7 (4)	91	4/10
7-7	28.9 (10)	10/10	29.2 (10)	101	10/10	28.2 (10)	98	10/10	27.5 (10)	95	10/10	26.9 (8)	93	8/10	25.8 (4)	89	4/10
8-7	29.6 (10)	10/10	29.6 (10)	100	10/10	28.9 (10)	98	10/10	28.2 (10)	95	10/10	27.0 (8)	91	8/10	26.7 (4)	90	4/10
9-7	30.0 (10)	10/10	30.1 (10)	100	10/10	29.3 (10)	98	10/10	28.7 (10)	96	10/10	27.4 (8)	91	8/10	27.7 (4)	92	4/10
10-7	30.6 (10)	10/10	30.8 (10)	101	10/10	29.9 (10)	98	10/10	28.9 (10)	94	10/10	28.0 (8)	92	8/10	27.2 (4)	89	4/10
11-7	31.3 (10)	10/10	32.0 (10)	102	10/10	30.9 (10)	99	10/10	29.9 (10)	96	10/10	28.5 (8)	91	8/10	27.8 (4)	89	4/10
12-7	32.0 (10)	10/10	32.4 (10)	101	10/10	31.2 (10)	98	10/10	30.1 (10)	94	10/10	28.9 (8)	90	8/10	28.3 (4)	88	4/10
13-7	32.7 (10)	10/10	33.0 (10)	101	10/10	31.6 (10)	97	10/10	30.6 (10)	94	10/10	29.3 (8)	90	8/10	27.9 (4)	85	4/10

< > : No.of effective animals, ( ) : No.of measured animals Av.Wt. : Average body weight (Unit : g).

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Week-Day on Study	0ppm		50ppm			100ppm			200ppm			300ppm			400ppm		
	Av.Wt.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>	Av.Wt.	% of cont.	No.of Surviv. <10>
0-0	19.0 (10)	10/10	19.0 (10)	100	10/10	19.0 (10)	100	10/10	19.0 (10)	100	10/10	19.0 (10)	100	10/10	19.0 (10)	100	10/10
1-7	19.8 (10)	10/10	19.7 (10)	99	10/10	19.5 (10)	98	10/10	19.6 (10)	99	10/10	18.2 (10)	92	10/10	16.4 (10)	83	10/10
2-7	20.8 (10)	10/10	21.0 (10)	101	10/10	20.3 (10)	98	10/10	20.7 (10)	100	10/10	20.6 (10)	99	10/10	20.7 (10)	100	10/10
3-7	21.6 (10)	10/10	21.7 (10)	100	10/10	21.9 (10)	101	10/10	21.3 (10)	99	10/10	20.8 (10)	96	10/10	20.5 (10)	95	10/10
4-7	22.0 (10)	10/10	23.2 (10)	105	10/10	21.8 (10)	99	10/10	22.8 (10)	104	10/10	22.6 (10)	103	10/10	22.2 (10)	101	10/10
5-7	22.1 (10)	10/10	22.7 (10)	103	10/10	22.7 (10)	103	10/10	22.2 (10)	100	10/10	22.6 (10)	102	10/10	22.1 (10)	100	10/10
6-7	22.4 (10)	10/10	23.5 (10)	105	10/10	23.1 (10)	103	10/10	23.3 (10)	104	10/10	22.9 (10)	102	10/10	22.3 (10)	100	10/10
7-7	22.9 (10)	10/10	23.8 (10)	104	10/10	23.3 (10)	102	10/10	23.5 (10)	103	10/10	23.3 (10)	102	10/10	22.5 (10)	98	10/10
8-7	23.5 (10)	10/10	24.1 (10)	103	10/10	23.7 (10)	101	10/10	24.4 (10)	104	10/10	23.3 (10)	99	10/10	22.8 (10)	97	10/10
9-7	22.9 (10)	10/10	24.0 (10)	105	10/10	24.3 (10)	106	10/10	24.2 (10)	106	10/10	23.7 (10)	103	10/10	23.2 (10)	101	10/10
10-7	23.8 (10)	10/10	24.7 (10)	104	10/10	24.3 (10)	102	10/10	24.6 (10)	103	10/10	24.0 (10)	101	10/10	23.3 (10)	98	10/10
11-7	24.6 (10)	10/10	25.2 (10)	102	10/10	24.5 (10)	100	10/10	24.7 (10)	100	10/10	24.2 (10)	98	10/10	23.6 (9)	96	9/10
12-7	24.7 (10)	10/10	26.1 (10)	106	10/10	24.8 (10)	100	10/10	25.3 (10)	102	10/10	24.9 (10)	101	10/10	24.4 (9)	99	9/10
13-7	25.3 (10)	10/10	25.5 (10)	101	10/10	25.2 (10)	100	10/10	25.2 (10)	100	10/10	25.2 (10)	100	10/10	24.9 (9)	98	9/10

< > : No.of effective animals, ( ) : No.of measured animals Av.Wt. : Average body weight (Unit : g).

TABLE 3
FOOD CONSUMPTION CHANGES OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Week-Day on Study	0ppm		50ppm			100ppm			200ppm			300ppm			400ppm		
	Av.Fc.	No.of Surviv. <10>	Av.Fc.	% of cont. <10>	No.of Surviv.	Av.Fc.	% of cont. <10>	No.of Surviv.	Av.Fc.	% of cont. <10>	No.of Surviv.	Av.Fc.	% of cont. <10>	No.of Surviv.	Av.Fc.	% of cont. <10>	No.of Surviv.
1-7	4.2 (10)	10/10	4.2 (10)	100	10/10	4.1 (10)	98	10/10	3.5 (10)	83	10/10	3.1 (9)	74	9/10	2.9 (4)	69	4/10
2-7	4.1 (10)	10/10	4.2 (10)	102	10/10	4.0 (10)	98	10/10	4.0 (10)	98	10/10	4.2 (8)	102	8/10	4.3 (4)	105	4/10
3-7	3.9 (10)	10/10	4.2 (10)	108	10/10	4.3 (10)	110	10/10	3.8 (10)	97	10/10	3.8 (8)	97	8/10	3.6 (4)	92	4/10
4-7	4.1 (10)	10/10	4.3 (10)	105	10/10	4.4 (10)	107	10/10	4.2 (10)	102	10/10	4.3 (8)	105	8/10	4.2 (4)	102	4/10
5-7	4.2 (10)	10/10	4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.1 (10)	98	10/10	4.0 (8)	95	8/10	3.9 (4)	93	4/10
6-7	4.2 (10)	10/10	4.4 (10)	105	10/10	4.3 (10)	102	10/10	4.1 (10)	98	10/10	4.3 (8)	102	8/10	4.4 (4)	105	4/10
7-7	4.2 (10)	10/10	4.5 (10)	107	10/10	4.5 (10)	107	10/10	4.3 (10)	102	10/10	4.2 (8)	100	8/10	4.2 (4)	100	4/10
8-7	4.3 (10)	10/10	4.5 (10)	105	10/10	4.5 (10)	105	10/10	4.3 (10)	100	10/10	4.2 (8)	98	8/10	4.5 (4)	105	4/10
9-7	4.3 (10)	10/10	4.6 (10)	107	10/10	4.5 (10)	105	10/10	4.4 (10)	102	10/10	4.3 (8)	100	8/10	4.5 (4)	105	4/10
10-7	4.4 (10)	10/10	4.6 (10)	105	10/10	4.6 (10)	105	10/10	4.3 (10)	98	10/10	4.4 (8)	100	8/10	4.4 (4)	100	4/10
11-7	4.3 (10)	10/10	4.7 (10)	109	10/10	4.7 (10)	109	10/10	4.4 (10)	102	10/10	4.4 (8)	102	8/10	4.4 (4)	102	4/10
12-7	4.4 (10)	10/10	4.7 (10)	107	10/10	4.6 (10)	105	10/10	4.3 (10)	98	10/10	4.6 (8)	105	8/10	4.4 (4)	100	4/10
13-7	4.3 (10)	10/10	4.6 (10)	107	10/10	4.5 (10)	105	10/10	4.4 (10)	102	10/10	4.5 (8)	105	8/10	4.1 (4)	95	4/10

< > : No.of effective animals, ( ) : No.of measured animals Av.Fc. : Average food consumption (Unit : g).

TABLE 4
FOOD CONSUMPTION CHANGES OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Week-Day on Study	0ppm Av.Fc. <10>	0ppm No.of Surviv.	50ppm Av.Fc. <10>	50ppm % of cont.	50ppm No.of Surviv.	100ppm Av.Fc. <10>	100ppm % of cont.	100ppm No.of Surviv.	200ppm Av.Fc. <10>	200ppm % of cont.	200ppm No.of Surviv.	300ppm Av.Fc. <10>	300ppm % of cont.	300ppm No.of Surviv.	400ppm Av.Fc. <10>	400ppm % of cont.	400ppm No.of Surviv.
1-7	3.4 (10)	10/10	3.4 (10)	100	10/10	3.3 (10)	97	10/10	3.1 (10)	91	10/10	2.6 (10)	76	10/10	2.3 (10)	68	10/10
2-7	3.5 (10)	10/10	3.7 (10)	106	10/10	3.6 (10)	103	10/10	3.5 (10)	100	10/10	3.7 (10)	106	10/10	3.8 (10)	109	10/10
3-7	3.5 (10)	10/10	3.7 (10)	106	10/10	3.8 (10)	109	10/10	3.4 (10)	97	10/10	3.3 (10)	94	10/10	3.1 (10)	89	10/10
4-7	3.7 (10)	10/10	3.9 (10)	105	10/10	3.8 (10)	103	10/10	3.9 (10)	105	10/10	3.8 (10)	103	10/10	3.7 (10)	100	10/10
5-7	3.7 (10)	10/10	3.9 (10)	105	10/10	3.9 (10)	105	10/10	3.6 (10)	97	10/10	3.7 (10)	100	10/10	3.5 (10)	95	10/10
6-7	3.8 (10)	10/10	4.0 (10)	105	10/10	3.9 (10)	103	10/10	3.9 (10)	103	10/10	3.9 (10)	103	10/10	3.8 (10)	100	10/10
7-7	4.1 (10)	10/10	4.1 (10)	100	10/10	4.0 (10)	98	10/10	4.1 (10)	100	10/10	4.0 (10)	98	10/10	3.8 (10)	93	10/10
8-7	4.0 (10)	10/10	4.2 (10)	105	10/10	4.0 (10)	100	10/10	4.1 (10)	103	10/10	4.0 (10)	100	10/10	4.0 (10)	100	10/10
9-7	4.0 (10)	10/10	4.2 (10)	105	10/10	4.2 (10)	105	10/10	4.1 (10)	103	10/10	4.0 (10)	100	10/10	4.1 (10)	103	10/10
10-7	4.1 (10)	10/10	4.3 (10)	105	10/10	4.2 (10)	102	10/10	4.2 (10)	102	10/10	4.1 (10)	100	10/10	4.0 (10)	98	10/10
11-7	4.1 (10)	10/10	4.3 (10)	105	10/10	4.2 (10)	102	10/10	4.1 (10)	100	10/10	4.0 (10)	98	10/10	3.9 (9)	95	9/10
12-7	4.1 (10)	10/10	4.4 (10)	107	10/10	4.1 (10)	100	10/10	4.2 (10)	102	10/10	4.2 (10)	102	10/10	4.0 (9)	98	9/10
13-7	4.2 (10)	10/10	4.2 (10)	100	10/10	4.3 (10)	102	10/10	4.2 (10)	100	10/10	4.3 (10)	102	10/10	4.0 (9)	95	9/10

< > : No.of effective animals, ( ) : No.of measured animals Av.Fc. : Average food consumption (Unit : g).

TABLE 5 URINALYSIS OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name		Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
Number of examined animals		10	10	10	10	10	9
	Grade						
Protein	−	0	0	0	0	0	0
	±	2	2	4	0	0	5
	+	7	8	6	6	4	3
	2+	1	0	0	4	6	1
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
	Chi square test					*	
Ketone body	−	1	0	0	0	0	0
	±	8	8	8	5	0	1
	+	1	2	2	3	4	5
	2+	0	0	0	2	6	3
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
	Chi square test					**	**

Significant difference : * : $p<0.05$ ** : $p<0.01$

TABLE 6 HEMATOLOGY OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name	Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
No. of examined animals	10	10	10	10	7	4
Red blood cell ($10^6/\mu$ L)	10.94 ± 0.29	10.36 ± 0.38 **	10.28 ± 0.43 **	10.26 ± 0.39 **	9.69 ± 0.47 **	8.81 ± 0.16 **
Hemoglobin (g/dL)	15.7 ± 0.3	15.1 ± 0.6 *	15.0 ± 0.6 *	14.9 ± 0.6 *	14.3 ± 0.6 **	13.4 ± 0.3 **
Hematocrit (%)	50.4 ± 0.9	48.6 ± 1.2 *	48.6 ± 2.0 *	48.7 ± 1.4 *	48.1 ± 1.5 *	45.5 ± 0.6 **
MCV (fL)	46.0 ± 0.8	46.9 ± 0.7 *	47.3 ± 0.5 **	47.5 ± 0.7 **	49.7 ± 1.1 **	51.7 ± 0.5 **
MCH (pg)	14.4 ± 0.2	14.6 ± 0.2	14.6 ± 0.1	14.5 ± 0.2	14.7 ± 0.3 **	15.1 ± 0.3 **
MCHC (g/dL)	31.2 ± 0.4	31.0 ± 0.5	30.9 ± 0.3	30.6 ± 0.6 *	29.6 ± 0.5 **	29.3 ± 0.6 **
Platelet ($10^3/\mu$ L)	1490 ± 78	1437 ± 54	1430 ± 52	1461 ± 70	1590 ± 77 **	1772 ± 99 **
Differential WBC N-SEG (%)	12 ± 4	14 ± 3	12 ± 5	14 ± 3	17 ± 9	28 ± 3 **
Differential WBC LYMPHO (%)	84 ± 4	82 ± 3	84 ± 5	80 ± 4	76 ± 10	66 ± 5 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 7 HEMATOLOGY OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name	Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
No. of examined animals	10	10	10	10	10	9
Red blood cell ($10^6/\mu$ L)	10.63 ± 0.64	10.49 ± 0.37	10.52 ± 0.30	10.28 ± 0.41	9.21 ± 0.46 **	8.79 ± 0.44 **
Hemoglobin (g/dL)	15.6 ± 1.2	15.5 ± 0.6	15.5 ± 0.4	15.2 ± 0.7	14.1 ± 0.7 **	13.7 ± 0.8 **
Hematocrit (%)	49.2 ± 3.1	49.0 ± 1.2	48.8 ± 1.1	48.9 ± 1.8	46.7 ± 2.0 *	45.2 ± 2.2 **
MCV (fL)	46.3 ± 0.6	46.7 ± 0.7	46.5 ± 0.6	47.6 ± 0.7 **	50.7 ± 0.7 **	51.5 ± 0.9 **
MCH (pg)	14.6 ± 0.4	14.8 ± 0.2	14.7 ± 0.2	14.8 ± 0.2	15.3 ± 0.1 **	15.5 ± 0.3 **
MCHC (g/dL)	31.6 ± 0.8	31.7 ± 0.6	31.7 ± 0.3	31.2 ± 0.5	30.3 ± 0.4 **	30.2 ± 0.4 **
Platelet ($10^3/\mu$ L)	1395 ± 98	1388 ± 172	1300 ± 62	1256 ± 361	1458 ± 51	1657 ± 149 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 8 BIOCHEMISTRY OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name	Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
No. of examined animals	10	10	10	10	8	4
Total protein (g/dL)	5.2 ± 0.2	5.0 ± 0.1	5.0 ± 0.2 **	4.9 ± 0.1 **	5.1 ± 0.1	5.0 ± 0.1
A/G ratio	1.4 ± 0.1	1.5 ± 0.1	1.5 ± 0.1	1.5 ± 0.1	1.6 ± 0.1 **	1.6 ± 0.1 **
T-bilirubin (mg/dL)	0.15 ± 0.01	0.15 ± 0.01	0.15 ± 0.01	0.16 ± 0.01	0.16 ± 0.03	0.18 ± 0.02 *
Glucose (mg/dL)	219 ± 22	174 ± 38 *	184 ± 43	191 ± 32	180 ± 32	213 ± 33
Triglyceride (mg/dL)	31 ± 9	20 ± 5	18 ± 8 *	14 ± 3 **	28 ± 15	42 ± 9
Phospholipid (mg/dL)	179 ± 23	163 ± 13	155 ± 18 *	162 ± 25	206 ± 8 *	213 ± 17 *
GOT (IU/L)	40 ± 4	43 ± 6	41 ± 7	39 ± 6	52 ± 12	139 ± 24 **
GPT (IU/L)	17 ± 2	16 ± 3	17 ± 3	18 ± 3	21 ± 5	95 ± 37 **
LDH (IU/L)	183 ± 35	180 ± 27	218 ± 118	171 ± 30	212 ± 50	397 ± 64 *
ALP (IU/L)	141 ± 10	142 ± 15	134 ± 10	144 ± 12	174 ± 8 **	325 ± 45 **
CPK (IU/L)	45 ± 11	41 ± 7	49 ± 8	43 ± 16	43 ± 11	86 ± 54
Potassium (mEq/L)	4.5 ± 0.2	4.3 ± 0.2	4.6 ± 0.3	4.4 ± 0.3	4.9 ± 0.5	5.0 ± 0.3 *
Calcium (mg/dL)	9.0 ± 0.3	8.8 ± 0.2	8.7 ± 0.1 *	8.6 ± 0.2 **	8.9 ± 0.3	8.9 ± 0.1
Inorganic Phosphorus (mg/dL)	7.9 ± 1.1	7.7 ± 0.6	7.6 ± 0.6	6.5 ± 0.6 **	7.8 ± 0.9	7.9 ± 1.7

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 9 BIOCHEMISTRY OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name	Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
No. of examined animals	10	10	10	10	10	9
A/G ratio	1.7 ± 0.2	1.7 ± 0.1	1.7 ± 0.1	1.8 ± 0.1	1.9 ± 0.1 **	1.9 ± 0.1 **
T-bilirubin (mg/dL)	0.14 ± 0.01	0.14 ± 0.03	0.14 ± 0.02	0.14 ± 0.00	0.15 ± 0.02	0.18 ± 0.03 **
T-cholesterol (mg/dL)	77 ± 12	74 ± 11	71 ± 7	78 ± 5	92 ± 7 **	109 ± 8 **
Triglyceride (mg/dL)	17 ± 8	16 ± 4	13 ± 5	12 ± 4	18 ± 8	69 ± 56 *
Phospholipid (mg/dL)	160 ± 20	156 ± 17	147 ± 19	158 ± 15	185 ± 16 *	227 ± 19 **
GOT (IU/L)	53 ± 10	60 ± 31	54 ± 13	45 ± 9	75 ± 45	206 ± 173 *
GPT (IU/L)	21 ± 4	21 ± 8	20 ± 3	18 ± 3	27 ± 25	95 ± 180
LDH (IU/L)	201 ± 21	233 ± 93	207 ± 54	226 ± 96	276 ± 119	568 ± 364 **
CPK (IU/L)	58 ± 22	62 ± 41	55 ± 23	53 ± 29	48 ± 21	93 ± 43
Urea Nitrogen (mg/dL)	29.0 ± 13.2	23.3 ± 3.4	22.4 ± 2.5	21.6 ± 2.7	19.1 ± 2.1 **	15.7 ± 2.6 **
Chloride (mEq/L)	121 ± 3	122 ± 2	122 ± 2	121 ± 2	120 ± 1	117 ± 3 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 10 ORGAN WEIGHTS OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name	Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
No. of examined animals	10	10	10	10	8	4
Body weight (g)	29.3 ± 1.7	29.5 ± 3.1	28.1 ± 2.1	26.6 ± 1.4 *	25.6 ± 1.0 **	24.1 ± 0.8 **
Testes (g)	0.202 ± 0.060	0.223 ± 0.025	0.234 ± 0.023	0.229 ± 0.024	0.220 ± 0.017	0.210 ± 0.023
Testes (%)	0.691 ± 0.208	0.764 ± 0.120	0.838 ± 0.093	0.866 ± 0.112 *	0.859 ± 0.065	0.870 ± 0.076
Heart (g)	0.151 ± 0.008	0.161 ± 0.011	0.159 ± 0.013	0.149 ± 0.011	0.142 ± 0.004	0.152 ± 0.001
Heart (%)	0.518 ± 0.049	0.547 ± 0.033	0.570 ± 0.060 *	0.561 ± 0.035	0.554 ± 0.031	0.632 ± 0.022 **
Lungs (g)	0.164 ± 0.009	0.172 ± 0.015	0.173 ± 0.012	0.163 ± 0.018	0.160 ± 0.009	0.158 ± 0.006
Lungs (%)	0.563 ± 0.040	0.583 ± 0.036	0.616 ± 0.029 *	0.611 ± 0.070	0.626 ± 0.034 *	0.657 ± 0.035 **
Kidneys (g)	0.434 ± 0.041	0.462 ± 0.034	0.462 ± 0.027	0.450 ± 0.030	0.461 ± 0.022	0.480 ± 0.012
Kidneys (%)	1.487 ± 0.160	1.572 ± 0.084	1.654 ± 0.131 **	1.690 ± 0.062 **	1.801 ± 0.114 **	1.990 ± 0.104 **
Spleen (g)	0.047 ± 0.009	0.048 ± 0.008	0.041 ± 0.005	0.041 ± 0.006	0.043 ± 0.003	0.052 ± 0.005
Spleen (%)	0.160 ± 0.035	0.163 ± 0.019	0.145 ± 0.020	0.154 ± 0.017	0.166 ± 0.015	0.216 ± 0.026 **
Liver (g)	1.166 ± 0.051	1.209 ± 0.099	1.187 ± 0.057	1.152 ± 0.085	1.330 ± 0.127 **	1.517 ± 0.084 **
Liver (%)	3.993 ± 0.227	4.111 ± 0.267	4.247 ± 0.284	4.327 ± 0.213	5.188 ± 0.413 **	6.292 ± 0.378 **
Brain (g)	0.428 ± 0.017	0.446 ± 0.018	0.438 ± 0.026	0.442 ± 0.018	0.440 ± 0.016	0.425 ± 0.012
Brain (%)	1.468 ± 0.128	1.527 ± 0.178	1.566 ± 0.114	1.662 ± 0.083 **	1.719 ± 0.059 **	1.762 ± 0.076 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 11 ORGAN WEIGHTS OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE

Group Name	Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
No. of examined animals	10	10	10	10	10	9
Body weight (g)	21.7 ± 1.1	22.1 ± 1.4	21.3 ± 0.9	21.7 ± 1.3	22.0 ± 0.7	21.1 ± 0.5
Lungs (g)	0.156 ± 0.012	0.160 ± 0.014	0.172 ± 0.013	0.159 ± 0.015	0.161 ± 0.014	0.155 ± 0.011
Lungs (%)	0.717 ± 0.058	0.722 ± 0.048	0.811 ± 0.064 **	0.733 ± 0.076	0.732 ± 0.063	0.739 ± 0.059
Kidneys (g)	0.348 ± 0.166	0.327 ± 0.083	0.296 ± 0.015	0.306 ± 0.016	0.332 ± 0.010 *	0.350 ± 0.026 **
Kidneys (%)	1.611 ± 0.805	1.476 ± 0.330	1.391 ± 0.058	1.415 ± 0.084	1.510 ± 0.073	1.665 ± 0.130 **
Spleen (g)	0.052 ± 0.005	0.056 ± 0.015	0.050 ± 0.007	0.048 ± 0.007	0.052 ± 0.005	0.062 ± 0.007
Spleen (%)	0.240 ± 0.027	0.250 ± 0.055	0.236 ± 0.025	0.220 ± 0.022	0.236 ± 0.022	0.293 ± 0.033 *
Liver (g)	0.953 ± 0.080	1.012 ± 0.081	0.982 ± 0.052	1.033 ± 0.077	1.206 ± 0.102 **	1.532 ± 0.151 **
Liver (%)	4.383 ± 0.248	4.575 ± 0.258	4.622 ± 0.226	4.764 ± 0.201	5.477 ± 0.344 **	7.285 ± 0.783 **
Brain (g)	0.445 ± 0.021	0.459 ± 0.022	0.456 ± 0.017	0.447 ± 0.022	0.448 ± 0.014	0.406 ± 0.017 **
Brain (%)	2.051 ± 0.140	2.083 ± 0.162	2.144 ± 0.089	2.064 ± 0.142	2.040 ± 0.090	1.927 ± 0.095

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 12 INCIDENCES OF SELECTED LESIONS OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE (DEAD AND MORIBUND ANIMALS)

Group		300 ppm	400 ppm
Number of examined animals		2	6
Organ Findings	Grade		
Liver			
Vacuolic change: central	2+	0	1
	3+	0	4
Fatty change: central	1+	1	1
	2+	0	4
Mineralization: central	2+	0	1
Necrosis : central	3+	1	2
Heart			
Ground glass appearance	2+	0	5
	3+	1	1
Lymph node			
Karyorrhexis	1+	0	1
	2+	0	4
Atrophy	3+	1	0
Thymus			
Karyorrhexis	1+	1	2
	2+	0	3
Atrophy	3+	1	1
Spleen			
Atrophy	1+	0	3
	2+	0	2
	3+	1	0
Bone marrow			
Congestion	1+	1	1
	2+	0	2
	3+	0	3
Nasal cavity			
Desquamation: olfactory epithelium	1+	0	6
Necrosis: olfactory epithelium	1+	2	0
Atrophy: olfactory epithelium	1+	1	0
Respiratory metaplasia: olfactory epithelium	1+	0	1
Pituitary			
Congestion	1+	1	6
Adrenal			
Congestion	1+	1	6
Lung			
Congestion	1+	1	3
Testis			
Germ cell necrosis	1+	0	2

Grade 1+: Slight 2+: Moderate 3+: Marked

TABLE 13 INCIDENCES OF SELECTED LESIONS OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE (SACRIFICED ANIMALS)

Group		Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
Number of examined animals		10	10	10	10	8	4
Organ Findings	Grade						
Liver							
Swelling: central	1+	0	0	0	0	8	2
	2+	0	0	0	0	0	1
	3+	0	0	0	0	0	1
	Chi Square test					**	**
Vacuolic change: central	1+	0	0	0	0	0	2
Mineralization: central	1+	0	0	0	0	0	1
	2+	0	0	0	0	0	2
	Chi Square test						**
Necrosis : central	1+	0	0	0	0	0	1
Heart							
Ground glass appearance	1+	0	0	0	0	2	3
	Chi Square test						*
Spleen							
Deposit of hemosiderin	1+	0	0	0	0	0	4
	Chi Square test						**
Increased extramedullary	1+	0	1	0	0	3	0
hematopoiesis	2+	0	0	0	0	0	4
	Chi Square test						**
Megakaryocyte: increased	1+	0	0	0	0	3	4
	Chi Square test						**
Bone marrow							
Erythropoiesis: increased	1+	0	0	0	0	3	2
Nasal cavity							
Necrosis: olfactory epithelium	1+	0	0	0	0	2	1
Atrophy: olfactory epithelium	1+	0	0	0	0	6	4
	Chi Square test					**	**
Respiratory metaplasia: olfactory epithelium	1+	0	0	0	0	3	2
Stomach							
Hyperplasia: forestomach	1+	0	0	0	1	2	2
	2+	0	0	0	0	0	2
	Chi Square test						**
Kidney							
Vacuolization of proximal	1+	5	6	7	8	5	0
tubule	2+	3	4	1	0	0	0
	3+	0	0	2	0	0	0
	Chi Square test						*

Grade 1+: Slight 2+: Moderate 3+: Marked

Significant difference * : $p<0.05$ ** : $p<0.01$

TABLE 14 INCIDENCES OF SELECTED LESIONS OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE
(DEAD AND MORIBUND ANIMALS)

Group		400 ppm
Number of examined animals		1
Organ Findings	Grade	
Liver		
Vacuolic change: central	1+	1
Mineralization: central	1+	1
Heart		
Ground glass appearance	1+	1
Mineralization	1+	1
Spleen		
Deposit of hemosiderin	1+	1
Increased extramedullary hematopoiesis	1+	1
Bone marrow		
Erythropoiesis: increased	1+	1
Nasal cavity		
Necrosis: olfactory epithelium	1+	1
Atrophy: olfactory epithelium	1+	1
Lung		
Congestion	1+	1
Stomach		
Hyperplasia: forestomach	2+	1
Inflammation: foreign body	1+	1

Grade 1+: Slight 2+: Moderate

TABLE 15 INCIDENCES OF SELECTED LESIONS OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF 1,2-DICHLOROPROPANE (SACRIFICED ANIMALS)

Group		Control	50 ppm	100 ppm	200 ppm	300 ppm	400 ppm
Number of examined animals		10	10	10	10	10	9
Organ Findings	Grade						
Liver							
Swelling: central	1+	0	0	0	0	7	8
	2+	0	0	0	0	0	1
	Chi Square test					**	**
Mineralization: central	1+	0	0	0	0	0	2
	2+	0	0	0	0	0	6
	Chi Square test						**
Necrosis : focal	1+	0	0	0	0	0	1
Heart							
Ground glass appearance	1+	0	0	0	0	3	4
	2+	0	0	0	0	0	1
	3+	0	0	0	0	0	3
	Chi Square test						**
Mineralization	1+	0	0	0	0	0	8
	2+	0	0	0	0	0	1
	Chi Square test						**
Spleen							
Deposit of hemosiderin	1+	0	0	0	0	0	9
	Chi Square test						**
Increased extramedullary hematopoiesis	1+	0	0	0	0	5	4
	2+	0	1	0	0	0	5
	Chi Square test					*	**
Megakaryocyte: increased	1+	0	1	0	0	3	9
	Chi Square test						**
Bone marrow							
Erythropoiesis: increased	1+	0	0	0	0	4	3
Nasal cavity							
Necrosis: olfactory epithelium	1+	0	0	0	0	4	1
Atrophy: olfactory epithelium	1+	0	0	0	0	7	8
	Chi Square test					**	**
Respiratory metaplasia: olfactory epithelium	1+	0	0	0	0	4	3
Stomach							
Hyperplasia: forestomach	1+	0	0	0	1	5	4
	2+	0	0	0	0	5	3
	3+	0	0	0	0	0	2
	Chi Square test					**	**
Inflammation: foreign body	1+	0	0	0	0	0	2

Grade 1+: Slight 2+: Moderate 3+: Marked

Significant difference * : $p<0.05$ ** : $p<0.01$