

Table 1-1

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Clinical signs in males

Clinical signs	Group	Number of Animals	Number of animals with clinical signs																													
			Day of dosing period																													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total	
Transient salivation immediately after administration	Control	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	25 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	2	2	4	2	4	-	3	3	
	100 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	2	-	2	2	1	2	1	1	1	2	4
Loss of fur on the abdomen /femurs	400 mg/kg	10	-	-	-	-	-	-	-	-	-	-	1	2	1	6	4	6	7	3	7	7	7	8	5	9	8	3	8	7	10	
	Control	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	25 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Emaciation	100 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	400 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	Control	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Decreased fecal volume	25 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	100 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	400 mg/kg	10	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	1

-, no animal showed the signs

Table 1-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Clinical signs in females

Clinical signs	Group	Number of Animals	Number of animals with clinical signs																												
			Day of dosing period																												
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Transient salivation immediately after administration	Control	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	25 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	100 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	3	1	1	2	2	3	2	-	2	2	6
Loss of fur on the abdomen /femurs	400 mg/kg	10	-	-	-	-	-	-	-	-	-	-	3	2	2	5	1	2	3	4	2	2	4	4	4	4	5	5	5	6	8
	Control	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	25 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1
	100 mg/kg	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	
	400 mg/kg	10	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	

-, no animal showed the signs

Table 2-1

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Body weight changes in males

Group	Body weight(g)										
	Day of dosing period										
	1	4	8	11	15	18	22	25	28		
Control	10	10	10	10	10	10	10	10	10	10	10
	250.2	277.5	305.6	327.4	348.9	365.4	387.1	400.2	414.9		
	6.5	8.9	10.8	10.3	11.5	11.5	14.5	15.7	16.4		
25 mg/kg	10	10	10	10	10	10	10	10	10	10	10
	250.0	272.5	299.4	320.3	340.4	353.2	373.0	385.6	396.0		
	5.4	7.3	10.9	14.1	18.1	19.0	21.8	23.7	21.8		
100 mg/kg	10	10	10	10	10	10	10	10	10	10	10
	249.8	259.0 **	265.0 **	271.3 **	277.3 **	283.5 **	294.8 **	301.6 **	306.2 **		
	5.7	7.6	14.7	21.8	24.2	25.7	24.8	26.7	29.4		
400 mg/kg	10	10	10	10	10	10	10	10	10	10	10
	249.4	252.3 **	260.1 **	264.0 **	278.2 **	283.4 **	293.3 **	297.6 **	302.2 **		
	4.4	7.4	21.9	28.6	24.6	25.9	23.6	22.2	21.2		

Parameter, number of animals

mean

S.D.

**, significantly different from control, p<0.01

Table 2-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Body weight changes in females

Group	Body weight(g)										
	1	4	8	11	15	18	22	25	28	Day of dosing period	
Control	188.5	200.3	214.6	224.6	232.1	241.4	250.3	253.7	256.9	10	10
	6.5	6.7	8.4	12.4	16.1	15.1	17.5	18.5	21.2	10	10
25 mg/kg	10	10	10	10	10	10	10	10	10	10	10
	187.3	197.5	207.8	217.5	226.1	230.8	237.5	240.0	245.9	10	10
	5.3	5.8	6.5	7.2	9.9	11.5	12.8	11.9	13.9	10	10
100 mg/kg	10	10	10	10	10	10	10	10	10	10	10
	188.9	192.4	199.8	206.7	212.5	216.4	219.6	220.7	222.4	**	**
	5.2	8.3	6.5	9.4	10.6	9.4	11.9	13.9	14.9	**	**
400 mg/kg	10	10	10	10	10	10	10	10	10	10	10
	188.9	189.6	198.2	206.5	210.2	214.2	220.0	223.5	226.8	**	**
	4.7	7.8	10.9	12.8	11.8	12.2	11.6	12.0	13.6	**	**

Parameter, number of animals

**, significantly different from control, p<0.01

mean

S.D.

Table 3-1,

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Estrous cycle in females; corn oil(vehicle control)

Animal no.	Stage														Type	Mean length (days)
	22	23	24	25	26	27	28	29	30	31	32	33				
41	D	D	D	E	D	D	D	E	D	D	DS				regular	4.0
42	D	E	D	D	P	E	D	DS							regular	4.0
43	D	D	E	D	D	D	D	D	P	E	D	DS			irregular	6.0
44	D	D	P	E	D	D	D	D	E	D	DS				regular	5.0
45	P	E	D	D	P	E	D	DS							regular	4.0
46	P	E	D	D	P	E	E	D	DS						regular	5.0
47	P	E	D	D	P	E	D	D	D	D	E	DS			regular	4.5
48	D	E	D	D	P	E	D	DS							regular	4.0
49	D	D	E	D	D	D	D	E	D	DS					regular	5.0
50	D	D	E	D	D	D	D	E	D	DS					regular	5.0
Mean																4.7
±S.D.																0.7

D, diestrus; P, proestrus; E, estrus
S, sacrifice

Table 3-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Estrous cycle in females; methoxychlor, 25 mg/kg

Animal no.	Stage														Type	Mean length (days)
	22	23	24	25	26	27	28	29	30	31	32	33				
51	D	E	D	D	D	D	E	D	DS	DS					regular	5.0
52	D	D	D	E	D	D	D	E	D	DS					regular	4.0
53	D	E	D	D	P	E	D	DS							regular	4.0
54	P	E	D	D	D	D	D	D	DS						uncycle	
55	D	D	D	E	D	D	D	E	D	DS					regular	4.0
56	E	D	D	D	E	D	D	D	E	D	DS				regular	4.0
57	D	D	P	E	D	D	D	E	D	DS					regular	4.0
58	D	D	D	P	E	D	D	D	D	E	D	DS			regular	5.0
59	D	D	P	E	D	D	D	E	D	DS					regular	4.0
60	D	D	P	E	D	D	P	E	D	DS					regular	4.0
Mean																4.2
±S.D.																0.4

D, diestrus; P, proestrus; E, estrus

S, sacrifice

Table 3-3

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Estrous cycle in females; methoxychlor, 100 mg/kg

Animal no.	Stage														Type	Mean length (days)
	22	23	24	25	26	27	28	29	30	31	32	33				
61	D	D	D	D	D	D	D	D	DS						anestrus	
62	P	E	D	D	D	D	D	D	DS						uncycle	
63	P	E	D	D	*	D	D	D	D	DS						
64	D	D	D	*	D	D	D	D	D	DS						
65	D	D	D	D	D	D	D	DS								
66	D	E	D	P	D	D	D	E	D	DS					anestrus	6.0
67	D	E	D	D	D	D	E	D	DS						irregular	5.0
68	D	D	D	D	P	D	D	D	DS						regular	
69	D	D	D	D	D	D	D	D	DS						anestrus	
70	*	D	D	D	D	D	D	D	DS						anestrus	
Mean																5.5
±S.D.																0.7

D, diestrus; P, proestrus; E, estrus; *, unidentified
S, sacrifice

Table 3-4

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Estrous cycle in females; methoxychlor, 400 mg/kg

Animal no.	Stage											Type	Mean length (days)
	22	23	24	25	26	27	28	29	30	31	32		
71	D	D	D	D	*	D	D	D	D	D	D	DS	
72	D	*	D	D	*	D	D	D	D	D	DS		
73	D	*	P	D	P	D	P	D	D	D	D	DS	
74	D	*	E	D	*	D	P	P	D	D	D	DS	
75	D	*	E	D	*	D	P	P	D	D	D	DS	
76	P	E	D	D	E	E	E	E	E	E	D	DS	irregular
77	P	E	E	D	P	E	E	E	E	E	E	ES	irregular
78	D	*	D	D	P	E	D	P	E	E	E	DS	
79	D	*	D	D	D	D	D	D	DS				
80	P	E	E	D	*	P	E	E	E	E	E	DS	
Mean													
±S.D.													8.0

D, diestrus; P, proestrus; E, estrus; *, unidentified
S, sacrifice

Table 4-1

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Serum hormone levels in males

Group	LH (ng/mL)	FSH (ng/mL)	Prolactin (ng/mL)	Oestradiol (pg/mL)	Testosterone (ng/mL)	Corticosterone (ng/mL)
Control	10 7.7 1.1	10 179 38	10 36 18	2 12 -	10 2.43 1.50	9 88 140
25 mg/kg	10 9.8 3.8	10 191 38	10 44 21	3 12 2	10 2.26 1.17	10 42 47
100 mg/kg	10 10.3 3.2	10 256 * 51	10 104 ** 37	3 9 4	4 0.72 0.59	10 50 53
400 mg/kg	10 9.9 2.5	10 324 ** 107	10 114 ** 66	1 12 -	3 0.85 0.63	8 64 69
Parameter,	number of animals	mean	S.D.			

*, significantly different from control, $p < 0.05$ **, significantly different from control, $p < 0.01$

Table 4-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Serum hormone levels in females

Group	LH (ng/mL)	FSH (ng/mL)	Prolactin (ng/mL)	Oestradiol (pg/mL)	Corticosterone (ng/mL)
Control	10 6.1 3.1	10 249 32	10 39 15	3 26 19	10 176 167
25 mg/kg	10 6.7 3.3	10 317 66	10 47 27	7 16 13	10 163 115
100 mg/kg	10 5.9 1.1	10 349 168	10 218 350	6 14 5	10 62 50
400 mg/kg	10 6.3 1.7	10 394 81	10 122 88	1 9 -	10 141 102
Parameter,	number of animals	mean	S.D.		

*, significantly different from control, $p < 0.05$ **, significantly different from control, $p < 0.01$

Table 5-1

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Hematological findings in males

Group	RBC (x10 ⁴ /mm ³)	Hemoglobin (g/dL)	Hematocrit (%)	MCV (μm ³)	MCH (pg)	MCHC (%)	WBC (x100/mm ³)	Band neutrophil (%)	Segmented neutrophil (%)	Eosinophil (%)	Basophil (%)	Monocyte (%)	Lymphocyte (%)	Platelet (x10 ⁴ /mm ³)	PT (sec)
Control	720	14.2	40.8	56.6	19.8	35.0	106	0	11	1	0	1	87	96.2	10.8
	24	0.4	1.2	1.9	0.6	0.6	22	0	3	1	0	1	4	5.1	0.2
25 mg/kg	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	723	14.1	40.6	56.2	19.5	34.6	99	0	13	0	0	1	86	90.6	11.6 *
100 mg/kg	24	0.3	0.8	1.6	0.6	0.4	36	0	4	0	0	1	4	11.0	0.6
	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
400 mg/kg	710	13.8	39.5	55.7	19.5	34.9	71 *	0	8	1	0	2	89	89.8	12.3 **
	29	0.6	1.5	1.1	0.6	0.5	26	0	4	1	0	2	5	9.1	0.4
400 mg/kg	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	665 *	12.7 **	36.2 **	54.4 **	19.0 *	35.0	64 **	0	13	1	0	1	85	103.8	11.4
	55	0.9	2.5	1.3	0.6	0.4	20	0	8	1	0	1	9	9.3	1.1

Parameter, number of animals

mean

S.D.

*, significantly different from control, p<0.05

**, significantly different from control, p<0.01

Table 5-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Hematological findings in females

Group	RBC (x10 ⁴ /mm ³)	Hemoglobin (g/dL)	Hematocrit (%)	MCV (μ m ³)	MCH (pg)	MCHC (%)	WBC (x100/mm ³)	Band neutrophil (%)	Segmented neutrophil (%)	Eosinophil (%)	Basophil (%)	Monocyte (%)	Lymphocyte (%)	Platelet (x10 ⁴ /mm ³)	PT (sec)
Control	10 723 28	10 13.5 0.4	10 40.5 0.6	10 56.1 1.8	10 18.7 0.7	10 33.3 0.7	10 61 20	10 0 0	10 9 3	10 1 1	10 0 0	10 1 1	10 90 4	10 96.3 8.1	10 10.7 1.4
25 mg/kg	10 709 22	10 13.3 0.4	10 39.7 1.3	10 56.0 2.1	10 18.7 0.8	10 33.4 0.6	10 55 14	10 0 0	10 8 5	10 0 1	10 0 0	10 2 2	10 90 5	10 98.3 7.2	10 11.2 0.4
100 mg/kg	10 680 ** 27	10 12.6 ** 0.5	10 37.4 ** 1.6	10 55.1 1.5	10 18.6 0.5	10 33.7 0.3	10 57 30	10 0 0	10 6 3	10 1 1	10 0 0	10 2 2	10 91 4	10 85.4 * 9.2	10 11.5 0.8
400 mg/kg	10 633 ** 31	10 11.7 ** 0.5	10 34.9 ** 1.8	10 55.1 1.8	10 18.5 0.6	10 33.5 0.6	10 48 12	10 0 0	10 13 5	10 1 1	10 0 0	10 3 2	10 83 * 8	10 101.1 11.3	10 10.9 0.8
Parameter, number of animals															
mean															
S.D.															

*, significantly different from control, p<0.05

**, significantly different from control, p<0.01

Table 6-1

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Biochemical findings in males

Group	Total protein (g/dL)	Albumin (g/dL)	A/G	BUN (mg/dL)	Creatinine (mg/dL)	Glucose (mg/dL)	Total cholesterol (mg/dL)	Tri-glyceride (mg/dL)	ALP (U/L)	LDH (U/L)	GPT (U/L)	GOT (U/L)	γ -GTP (U/L)	Inorg. phos. (mg/dL)	Ca (mg/dL)	Na (mEq/L)	K (mEq/L)	Cl (mEq/L)
Control	5.5 0.2	3.1 0.1	1.36 0.17	14 2	0.6 0.0	186 11	60 9	114 56	516 126	111 29	34 5	55 9	0 0	5.5 0.6	9.3 0.3	142.5 1.3	4.36 0.28	108.2 2.1
25 mg/kg	5.3 0.1	3.0 0.1	1.27 0.09	14 4	0.6 0.1	176 12	40 ** 7	145 73	584 192	110 58	33 5	51 5	0 0	5.6 0.5	9.2 0.3	142.7 0.9	4.32 0.33	107.9 1.1
100 mg/kg	5.2 0.3	2.9 * 0.2	1.27 0.12	14 2	0.6 0.1	156 ** 8	38 ** 8	116 62	499 137	80 23	34 5	43 ** 3	0 0	5.1 1.0	9.0 0.4	142.9 1.4	4.19 0.27	107.4 2.1
400 mg/kg	5.3 0.3	2.9 ** 0.3	1.18 * 0.12	14 3	0.7 * 0.1	153 ** 12	41 ** 10	89 49	531 139	91 34	51 ** 7	49 5	1 ** 0	5.0 0.9	9.1 0.5	142.8 1.9	4.16 0.40	108.7 1.9

Parameter, number of animals

mean

S.D.

*, significantly different from control, $p < 0.05$ **, significantly different from control, $p < 0.01$

Table 6-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Biochemical findings in females

Group	Total protein (g/dL)	Albumin (g/dL)	A/G	BUN (mg/dL)	Creatinine (mg/dL)	Glucose (mg/dL)	Total cholesterol (mg/dL)	Tri- glyceride (mg/dL)	ALP (U/L)	LDH (U/L)	GPT (U/L)	GOT (U/L)	γ-GTP (U/L)	Inorg. phos. (mg/dL)	Ca (mg/dL)	Na (mEq/L)	K (mEq/L)	Cl (mEq/L)
Control	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	5.6	3.5	1.64	19	0.6	161	63	56	320	67	27	50	0	5.5	8.9	142.6	3.94	109.6
	0.3	0.2	0.11	2	0.1	8	9	18	121	22	7	7	0	1.0	0.5	1.4	0.16	1.7
25 mg/kg	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	5.3	3.0 *	1.33 **	19	0.7	158	47 **	63	281	75	23	49	0	5.2	8.4	143.7	3.96	110.8
	0.4	0.3	0.12	3	0.1	21	9	30	42	29	6	4	0	0.9	0.7	1.9	0.36	3.1
100 mg/kg	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	5.0 **	2.7 **	1.22 **	17	0.6	140 **	35 **	106	433 *	77	22	46	1	4.6	8.2	144.0	3.83	111.1
	0.4	0.2	0.10	3	0.0	10	6	61	117	42	6	4	0	0.6	0.5	1.0	0.28	1.8
400 mg/kg	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	5.6	3.1	1.25 **	21	0.7	137 **	43 **	110 *	366	105	36	46	1 **	4.3 **	8.9	142.8	3.88	109.8
	0.6	0.6	0.28	4	0.1	24	8	55	94	92	12	8	1	0.7	1.1	2.9	0.57	2.8

Parameter, number of animals

mean

S.D.

*, significantly different from control, p<0.05

**, significantly different from control, p<0.01

Table 7-1

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Absolute organ weights in males

Group	Body weight (g)	Liver (mg)	Kidneys (mg)	Adrenal glands (mg)	Pituitary gland (mg)	Thyroid gland (mg)	Prostate (mg)	Seminal vesicles (mg)	Testes (mg)	Epididymides (mg)	Accessory reproductive gland (mg)
Control	10 420.0 18.5	10 16147.1 1297.5	10 2624.6 259.4	10 54.1 6.9	10 10.1 0.9	10 15.0 2.7	10 468.2 108.3	10 1339.8 286.9	10 3277.6 162.1	10 931.9 49.2	10 2467.6 420.9
25 mg/kg	10 401.7 22.7	10 15217.6 1399.1	10 2661.9 136.8	10 50.4 5.6	10 10.8 1.0	10 16.7 2.9	10 462.3 113.2	10 1299.9 195.3	10 3085.8 232.0	10 873.8 51.7	10 2259.6 371.1
100 mg/kg	10 312.1 ** 29.2	10 12452.1 ** 1731.7	10 2097.1 ** 239.8	10 54.8 9.0	10 9.0 * 1.0	10 13.5 2.1	10 146.9 ** 85.6	10 272.9 ** 249.4	10 2604.7 * 601.2	10 673.1 * 201.7	10 618.1 ** 385.8
400 mg/kg	10 307.0 ** 20.2	10 14529.3 * 1225.1	10 2257.6 ** 186.1	10 65.3 ** 6.8	10 9.1 * 0.8	10 13.4 1.7	10 61.7 ** 64.1	10 82.4 ** 18.9	10 1603.4 ** 668.9	10 367.9 ** 178.3	10 235.7 ** 122.4

Parameter, number of animals

*, significantly different from control, $p < 0.05$ **, significantly different from control, $p < 0.01$

mean

S.D.

Table 7-2

Twenty-eight-day repeat dose oral toxicity study of methoxychlor in rats

Absolute organ weights in females

Group	Body weight (g)	Liver (mg)	Kidneys (mg)	Adrenal glands (mg)	Pituitary gland (mg)	Thyroid gland (mg)	Uterus (mg)	Ovaries (mg)
Control	10 264.4 19.6	10 9454.4 1015.1	10 1722.6 129.8	10 62.9 9.8	10 14.3 1.3	10 12.8 1.5	10 379.2 79.9	10 84.9 10.2
25 mg/kg	10 250.4 15.8	10 9314.5 964.7	10 1637.7 113.4	10 64.8 6.7	10 12.5 ** 1.1	10 13.3 1.8	10 386.5 77.3	10 86.5 12.4
100 mg/kg	10 227.8 ** 15.4	10 9470.8 956.1	10 1578.2 152.0	10 71.0 7.7	10 12.1 ** 1.0	10 12.7 4.3	10 479.2 174.0	10 68.5 ** 9.4
400 mg/kg	10 228.3 ** 16.0	10 10838.6 ** 818.4	10 1706.0 325.8	10 58.8 6.0	10 10.7 ** 1.0	10 11.7 1.3	10 332.2 51.8	10 34.2 ** 4.7
Parameter, number of animals								
mean								
S.D.								
**, significantly different from control, p<0.01								