

Table 8 - 5

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Home cage: Convulsions

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Alertness

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	-2	0	0	0	0
	-1	5	0	2	0
	0	3	8	6	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	-2	0	0	0	0
	-1	4	0	1	0
	0	1	5	4	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	-2	0	0	0	0
	-1	4	0	1	0
	0	4	8	7	8
	1	0	0	0	0
	2	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Aggression

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Stereotypies

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Bizarre behavior

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Unkempt fur

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Piloerection

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Skin color

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	-2	0	0	0	0
	-1	0	0	0	0
	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	-2	0	0	0	0
	-1	0	0	0	0
	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	-2	0	0	0	0
	-1	0	0	0	0
	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Exploration

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	-2	0	0	0	0
	-1	0	0	0	0
	0	2	1	1	0
	1	6	6	7	7
	2	0	1	0	1
Parathion 0.3	-2	0	0	0	0
	-1	0	0	0	0
	0	1	1	0	0
	1	3	3	3	5
	2	1	1	2	0
Methami dophos 1.0	-2	0	0	0	0
	-1	0	0	0	0
	0	0	1	0	0
	1	8	6	7	5
	2	0	1	1	3

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Abnormal gait

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0
Parathion	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0
Methamidophos	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 8 - 15

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Count of defecation

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0
	5	0	0	0	0
	6	0	0	0	0
	7	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0
	5	0	0	0	0
	6	0	0	0	0
	7	0	0	0	0
Methami dophos 1.0	0	8	5	8	8
	1	0	1	0	0
	2	0	2	0	0
	3	0	0	0	0
	4	0	0	0	0
	5	0	0	0	0
	6	0	0	0	0
	7	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.



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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Defecation

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	0	0	0	0
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	8	8	8	8
Parathion 0.3	0	0	0	0	0
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	5	5	5	5
Methami dophos 1.0	0	0	3	0	0
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	8	5	8	8

Table 8 - 17

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Open field: Urination

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	5	8	5	3
	1	0	0	0	0
	2	0	0	0	0
	3	1	0	0	0
	NA	2	0	3	5
Parathion 0.3	0	3	5	1	2
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	2	0	4	3
Methami dophos 1.0	0	4	7	4	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	NA	4	1	4	3

Table 8 - 18

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Exophthalmos

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
Parathion 0.3	0	-	5	5	5
	1	-	0	0	0
	2	-	0	0	0
Methami dophos 1.0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0

-: No examined because eye opening was not observed on PND13.

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Palpebral closure

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0
Parathion 0.3	0	-	5	5	5
	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0
Methami dophos 1.0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0

-: No examined because eye opening was not observed on PND13.

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 8 - 20

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Lacrimation

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80	0	-	8	8	8
0	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0
Parathion	0	-	5	5	5
0.3	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0
Methami	0	-	8	8	8
dophos	1	-	0	0	0
1.0	2	-	0	0	0
	3	-	0	0	0

-: No examined because eye opening was not observed on PND13.

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 8 - 21

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Salivation

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80	0	8	8	8	8
0	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Parathion	0	5	5	5	5
0.3	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Methami	0	8	8	8	8
dophos	1	0	0	0	0
1.0	2	0	0	0	0
	3	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 8 - 22

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Mucous membrane

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	-2	0	0	0	0
	-1	0	0	0	0
	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	-2	0	0	0	0
	-1	0	0	0	0
	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	-2	0	0	0	0
	-1	0	0	0	0
	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Secretions/excretions (eye)

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0
Parathion 0.3	0	-	5	5	5
	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0
Methami dophos 1.0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	3	-	0	0	0

-: No examined because eye opening was not observed on PND13.

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Secretions/excretions (nose)

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 8 - 25

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Secretions/excretions (mouth)

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0

Data were statistically analyzed by Dunnnett-type test following Kruskal-Wallis test.

Table 8 - 26

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Muscle tone

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	-2	0	0	0	0
	-1	3	0	0	0
	0	5	8	8	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	-2	0	0	0	0
	-1	0	0	0	0
	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	-2	0	0	0	0
	-1	2	0	0	0
	0	6	8	8	8
	1	0	0	0	0
	2	0	0	0	0

Data were statistically analyzed by Dunnnett-type test following Kruskal-Wallis test.

Table 8 - 27

Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Reactivity to handling

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	-2	0	0	0	0
	-1	0	0	0	0
	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	-2	0	0	0	0
	-1	0	0	0	0
	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	-2	0	0	0	0
	-1	0	0	0	0
	0	8	8	8	7
	1	0	0	0	1
	2	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Co-ordination of movement

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0
Parathion 0.3	0	5	5	5	5
	1	0	0	0	0
	2	0	0	0	0
Methami dophos 1.0	0	8	8	8	8
	1	0	0	0	0
	2	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Pupil size

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80	-2	-	0	0	0
	-1	-	0	0	0
	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	NA	-	0	0	0
Parathion 0.3	-2	-	0	0	0
	-1	-	0	1	0
	0	-	5	4	5
	1	-	0	0	0
	2	-	0	0	0
	NA	-	0	0	0
Methami dophos 1.0	-2	-	0	0	0
	-1	-	1	0	0
	0	-	7	8	8
	1	-	0	0	0
	2	-	0	0	0
	NA	-	0	0	0

-: No examined because eye opening was not observed on PND13.

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.



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Detailed clinical observations - Summary data in F1 female rats on postnatal day

Handling: Pupillary reflex

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	NA	-	0	0	0
Parathion 0.3	0	-	5	5	5
	1	-	0	0	0
	2	-	0	0	0
	NA	-	0	0	0
Methamidophos 1.0	0	-	8	8	8
	1	-	0	0	0
	2	-	0	0	0
	NA	-	0	0	0

-: No examined because eye opening was not observed on PND13.

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 8 - 31

Detailed clinical observations - Summary data in female rats

Open field: Count of rearing

Dose groups (mg/kg/day)	Score	PND			
		13	25	40	63
1% Tween80 0	0	8	0	0	0
	1-5	0	3	2	0
	6-10	0	5	4	4
	11-15	0	0	2	3
	16-20	0	0	0	1
	20-25	0	0	0	0
Parathion 0.3	0	5	0	0	0
	1-5	0	2	1	0
	6-10	0	3	2	0
	11-15	0	0	1	5
	16-20	0	0	0	0
	20-25	0	0	1	0
Methami dophos 1.0	0	7	0	0	0
	1-5	1	3	0	0
	6-10	0	4	4	5
	11-15	0	0	3	2
	16-20	0	1	1	1
	20-25	0	0	0	0

Data were statistically analyzed by Dunnett-type test following Kruskal-Wallis test.

Table 9 Body weight - Group mean values in F1 male and female rats before weaning

Dose groups (mg/kg/day)		Male pup weight on postnatal day					Female pup weight on postnatal day				
		0	4	7	14	21	0	4	7	14	21
1% Tween80 0	Mean	5.8	10.5	16.8	33.7	54.1	5.5	10.1	16.3	32.5	51.6
	S.D.	0.5	1.2	1.3	2.5	3.5	0.4	1.2	1.3	2.4	3.0
Parathion 0.3	Mean	5.9	10.1	16.3	33.2	53.1	5.7	9.8	15.8	32.5	51.9
	S.D.	0.6	1.1	1.5	1.9	4.5	0.5	0.9	1.1	1.5	3.5
Methamido phos1.0	Mean	5.6	10.0	16.2	34.5	54.8	5.4	9.7	15.9	34.0	53.4
	S.D.	0.4	1.1	1.4	2.1	3.5	0.4	1.1	1.4	1.7	2.7

S.D.: Standard deviation.

Data were statistically analyzed by Dunnett's test following one-way ANOVA or Dunnett-type test following Kruskal-Wallis test.

Table 10 Body weight - Group mean values in F1 male rats after weaning

Dose groups (mg/kg/day)		Week of age							Final body weight
		3	4	5	6	7	8	9	
1% Tween80 0	Mean	54	89	136	179	223	266	298	319
	S.D.	4	6	9	13	16	19	21	23
Parathion 0.3	Mean	53	86	132	176	219	262	294	313
	S.D.	4	6	10	11	14	16	17	20
Methamido phos1.0	Mean	55	92	140	186	232	275	309	333
	S.D.	4	6	8	11	14	18	22	25

S.D.: Standard deviation.

Data were statistically analyzed by Dunnett's test following one-way ANOVA or Dunnett-type test following Kruskal-Wallis test.

Table 11 Body weight - Group mean values in F1 female rats after weaning

Dose groups (mg/kg/day)		Week of age							Final body weight
		3	4	5	6	7	8	9	
1% Tween80 0	Mean	51	80	114	135	156	175	189	197
	S.D.	3	4	7	9	9	10	10	11
Parathion 0.3	Mean	52	82	115	138	156	175	187	195
	S.D.	4	5	7	9	11	13	15	13
Methamido phos1.0	Mean	53	84 *	118	141	159	176	189	199
	S.D.	3	4	5	7	8	10	10	10

S.D.: Standard deviation.

Data were statistically analyzed by Dunnett's test following one-way ANOVA or Dunnett-type test following Kruskal-Wallis test.

Significantly different from control: \*,  $p \leq 0.05$ ; \*\*,  $p \leq 0.01$ .

Table 12

## Learning and memory - E-maze test in F1 male rats on postnatal day

Dose groups (mg/kg/day)		PND 25±2		PND 60-70	
		Percentage of correct answer (%)	Time (sec.)	Percentage of correct answer (%)	Time (sec.)
1% Tween80 0	Mean	75	19	75	14
	S.D.	38	12	38	9
Parathion 0.3	Mean	80	15	100	11
	S.D.	27	8	0	5
Methamido phos 1.0	Mean	100	10	81	13
	S.D.	0	3	26	7

S.D.: Standard deviation.

Data were statistically analyzed by Dunnett's test following one-way ANOVA or Dunnett-type test following Kruskal-Wallis test.

Table 13

## Learning and memory - E-maze test in F1 female rats on postnatal day

Dose groups (mg/kg/day)		PND 25±2		PND 60-70	
		Percentage of correct answer (%)	Time (sec.)	Percentage of correct answer (%)	Time (sec.)
1% Tween80 0	Mean	75	17	69	25
	S.D.	46	14	46	17
Parathion 0.3	Mean	70	24	70	13
	S.D.	27	8	27	6
Methamido phos 1.0	Mean	100	13	81	15
	S.D.	0	7	26	11

S.D.: Standard deviation.

Data were statistically analyzed by Dunnett's test following one-way ANOVA or Dunnett-type test following Kruskal-Wallis test.