

Table 7-1 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Blood chemistry (Day 28)

Sex	Dose mg/kg	No.		AST (GOT) IU/L	ALT (GPT) IU/L	LDH IU/L	γ -GTP IU/L	ALP IU/L	T.cho mg/dL	TG mg/dL	PL mg/dL	T.bili- rubin mg/dL	Glucose mg/dL
Male	0	6	Mean	67	27	62	1	685	47	40	94	0.0	134
			S.D.	6	4	9	0	96	11	19	17	0.0	11
	15	6	Mean	66	31	60	1	734	59	54	106	0.0	125
			S.D.	4	3	9	0	112	6	16	9	0.0	4
	60	6	Mean	68	31	57	1	754	59	37	101	0.0	131
			S.D.	8	6	5	0	82	9	14	14	0.0	20
	250	6	Mean	60	29	61	1	661	65*	29	107	0.0	120
			S.D.	2	4	11	0	147	17D	11	15	0.0	11
Female	0	6	Mean	70	27	62	2	419	61	10	112	0.0	95
			S.D.	11	2	7	1	29	13	3	15	0.0	9
	15	6	Mean	60	23	55	1	483	61	12	107	0.0	101
			S.D.	7	3	11	1	131	13	5	18	0.0	9
	60	6	Mean	62	22	56	2	413	73	10	118	0.0	89
			S.D.	7	1	15	1	59	7	5	5	0.0	4
	250	6	Mean	58*	27	52	2	362	97**	17	150**	0.0	98
			S.D.	7D	7	4	1	41	23D	5	25D	0.0	7

* : p<0.05 ; ** : p<0.01 (Significant difference from control group)
D : Dunnett's test

Table 7-2 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Blood chemistry (Day 28)

Sex	Dose mg/kg	No.		BUN mg/dL	Crea- tinine mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	Albumin g/dL	A/G
Male	0	6	Mean	12	0.24	143	4.8	107	9.8	8.1	5.9	2.7	0.87
			S.D.	2	0.03	1	0.5	2	0.2	0.4	0.2	0.1	0.05
	15	6	Mean	12	0.26	144	4.7	106	9.9	8.2	6.1	2.8	0.86
			S.D.	2	0.03	2	0.2	2	0.3	0.6	0.2	0.1	0.05
	60	6	Mean	11	0.25	144	4.7	108	9.8	7.7	6.0	2.7	0.82
			S.D.	1	0.02	2	0.1	2	0.2	0.2	0.2	0.1	0.04
	250	6	Mean	10	0.23	143	4.8	106	10.3**	7.7	6.4**	2.9	0.81
			S.D.	1	0.03	1	0.3	1	0.2D	0.5	0.2D	0.1	0.03
Female	0	6	Mean	17	0.32	142	4.4	110	10.0	7.6	6.1	2.9	0.89
			S.D.	2	0.02	1	0.4	1	0.2	0.4	0.1	0.1	0.06
	15	6	Mean	16	0.29	142	4.5	110	9.8	7.6	6.1	2.8	0.88
			S.D.	2	0.03	1	0.3	1	0.3	0.6	0.2	0.2	0.06
	60	6	Mean	16	0.30	143	4.4	109	10.0	7.5	6.2	2.9	0.90
			S.D.	3	0.05	2	0.5	2	0.2	0.8	0.1	0.1	0.04
	250	6	Mean	14	0.27	143	4.4	107**	10.3	7.7	6.6**	3.0	0.86
			S.D.	1	0.02	1	0.2	2D	0.2	0.3	0.2D	0.1	0.07

** : p<0.01 (Significant difference from control group)
D : Dunnett's test

Table 7-3

A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks

Blood chemistry (Week 2 of recovery)

Sex	Dose mg/kg	No.		AST (GOT) IU/L	ALT (GPT) IU/L	LDH IU/L	γ -GTP IU/L	ALP IU/L	T.cho mg/dL	TG mg/dL	PL mg/dL	T.bili- rubin mg/dL	Glucose mg/dL
Male	0	6	Mean	64	28	51	1	585	57	54	105	0.1	150
			S.D.	7	4	10	0	107	9	20	11	0.0	16
	250	6	Mean	67	29	47	1	499	58	40	108	0.1	140
			S.D.	4	3	5	0	52	10	19	15	0.0	17
Female	0	6	Mean	59	23	41	2	283	62	15	118	0.1	118
			S.D.	6	4	10	1	101	4	3	8	0.0	22
	250	6	Mean	63	23	39	2	280	71*	13	124	0.1	116
			S.D.	6	6	5	1	52	9T	5	12	0.0	16

* : p<0.05 (Significant difference from control group)

T : Student's t-test

Table 7-4 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Blood chemistry (Week 2 of recovery)

Sex	Dose mg/kg	No.		BUN mg/dL	Crea- tinine mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	Albumin g/dL	A/G
Male	0	6	Mean	12	0.28	142	4.6	106	9.9	6.8	6.3	2.9	0.83
			S.D.	1	0.04	1	0.4	1	0.2	0.5	0.2	0.1	0.05
	250	6	Mean	13	0.29	144	4.4	108	9.7	6.6	6.0*	2.7*	0.85
			S.D.	2	0.03	2	0.2	2	0.3	0.6	0.2T	0.1T	0.03
Female	0	6	Mean	16	0.33	142	4.2	110	10.0	6.7	6.2	3.0	0.91
			S.D.	2	0.03	1	0.4	2	0.3	0.8	0.2	0.1	0.07
	250	6	Mean	14	0.32	142	4.3	109	10.0	6.9	6.3	2.9	0.87
			S.D.	2	0.03	2	0.3	2	0.2	0.6	0.2	0.1	0.04

* : p<0.05 (Significant difference from control group)

T : Student's t-test

Table 8-1 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Day 28)
 Male

Dose mg/kg		Body weight g	Brain	Thymus	Heart	Liver	Spleen	Kidney (R+L)	Adrenal (R+L)	
			g(g/100g BW)	mg(mg/100g BW)	g(g/100g BW)	g(g/100g BW)	g(g/100g BW)	g(g/100g BW)	mg(mg/100g BW)	
Absolute	0	No.	6	6	6	6	6	6	6	
		Mean	354	1.97	499	1.27	10.12	0.67	2.72	66
		S.D.	25	0.05	94	0.21	0.90	0.13	0.32	4
	15	No.	6	6	6	6	6	6	6	6
		Mean	371	1.98	565	1.21	11.23	0.64	2.77	60
		S.D.	25	0.07	122	0.09	0.75	0.08	0.15	6
	60	No.	6	6	6	6	6	6	6	6
		Mean	363	1.99	500	1.23	11.63	0.62	2.78	57
		S.D.	46	0.11	105	0.21	2.08	0.10	0.42	15
	250	No.	6	6	6	6	6	6	6	6
		Mean	366	2.05	439	1.12	14.27**	0.65	2.95	64
		S.D.	24	0.07	97	0.09	1.68D	0.09	0.25	8
Relative	0	No.	6	6	6	6	6	6	6	
		Mean	0.56	141	0.36	2.86	0.19	0.77	18	
		S.D.	0.04	26	0.03	0.14	0.03	0.08	1	
	15	No.	6	6	6	6	6	6	6	
		Mean	0.54	152	0.33	3.03	0.17	0.75	16	
		S.D.	0.03	28	0.02	0.10	0.01	0.04	2	
	60	No.	6	6	6	6	6	6	6	
		Mean	0.56	137	0.34	3.19*	0.17	0.76	16	
		S.D.	0.05	21	0.04	0.21D	0.01	0.03	4	
	250	No.	6	6	6	6	6	6	6	
		Mean	0.56	119	0.31*	3.89**	0.18	0.81	18	
		S.D.	0.05	22	0.02D	0.23D	0.02	0.04	2	

* : p<0.05 ; ** : p<0.01 (Significant difference from control group)
 D : Dunnett's test

Table 8-2 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Day 28)
 Male

Dose			Testis (R+L) g(g/100g BW)	Epididymis (R+L) mg(mg/100g BW)
mg/kg				
Absolute	0	No.	6	6
		Mean	2.79	761
		S.D.	0.50	118
	15	No.	6	6
		Mean	3.00	763
		S.D.	0.22	104
	60	No.	6	6
		Mean	3.08	805
		S.D.	0.21	66
	250	No.	6	6
		Mean	2.96	791
		S.D.	0.33	95
Relative	0	No.	6	6
		Mean	0.79	216
		S.D.	0.14	37
	15	No.	6	6
		Mean	0.81	207
		S.D.	0.10	35
	60	No.	6	6
		Mean	0.86	224
		S.D.	0.07	24
	250	No.	6	6
		Mean	0.81	218
		S.D.	0.10	33

No significant difference in any treated groups from control group.

Table 8-3

A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks

Absolute and relative organ weight (Day 28)

Female

Dose mg/kg		Body weight	Brain	Thymus	Heart	Liver	Spleen	Kidney (R+L)	Adrenal (R+L)	
		g	g(g/100g BW)	mg(mg/100g BW)	g(g/100g BW)	g(g/100g BW)	g(g/100g BW)	g(g/100g BW)	mg(mg/100g BW)	
Absolute	0	No.	6	6	6	6	6	6	6	
		Mean	215	1.83	408	0.75	5.86	0.42	1.62	61
		S.D.	12	0.06	84	0.06	0.46	0.06	0.07	8
	15	No.	6	6	6	6	6	6	6	6
		Mean	210	1.85	443	0.76	6.16	0.46	1.74	65
		S.D.	13	0.10	54	0.04	0.50	0.09	0.12	9
	60	No.	6	6	6	6	6	6	6	6
		Mean	213	1.86	417	0.77	6.91*	0.46	1.76	68
		S.D.	14	0.05	108	0.06	0.61D	0.05	0.09	6
	250	No.	6	6	6	6	6	6	6	6
		Mean	215	1.83	444	0.77	9.61**	0.47	1.75	70
		S.D.	16	0.05	65	0.05	1.00D	0.05	0.11	10
Relative	0	No.	6	6	6	6	6	6	6	
		Mean	0.85	189	0.35	2.73	0.20	0.75	28	
		S.D.	0.05	32	0.02	0.14	0.02	0.06	3	
	15	No.	6	6	6	6	6	6	6	
		Mean	0.88	212	0.36	2.94	0.22	0.83	31	
		S.D.	0.03	26	0.01	0.25	0.03	0.07	3	
	60	No.	6	6	6	6	6	6	6	
		Mean	0.88	196	0.36	3.25**	0.22	0.83	32	
		S.D.	0.05	48	0.02	0.19D	0.01	0.06	4	
	250	No.	6	6	6	6	6	6	6	
		Mean	0.85	207	0.36	4.47**	0.22	0.81	33	
		S.D.	0.08	31	0.03	0.32D	0.02	0.03	4	

* : p<0.05 ; ** : p<0.01 (Significant difference from control group)
D : Dunnett's test

Table 8-4 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Day 28)
 Female

Dose mg/kg			Ovary (R+L)	Uterus
			mg(mg/100g BW)	mg(mg/100g BW)
Absolute	0	No.	6	6
		Mean	78.9	422
		S.D.	6.5	85
	15	No.	6	6
		Mean	77.8	439
		S.D.	12.7	134
	60	No.	6	6
		Mean	78.1	463
		S.D.	10.5	87
	250	No.	6	6
		Mean	83.2	439
		S.D.	6.6	92
Relative	0	No.	6	6
		Mean	36.8	196
		S.D.	2.5	32
	15	No.	6	6
		Mean	37.0	209
		S.D.	4.5	62
	60	No.	6	6
		Mean	36.8	219
		S.D.	4.8	48
	250	No.	6	6
		Mean	38.7	207
		S.D.	2.2	57

No significant difference in any treated groups from control group.

Table 8-5 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Week 2 of recovery)
 Male

Dose mg/kg	Body weight g	Brain g(g/100g BW)	Thymus mg(mg/100g BW)	Heart g(g/100g BW)	Liver g(g/100g BW)	Spleen g(g/100g BW)	Kidney (R+L) g(g/100g BW)	Adrenal (R+L) mg(mg/100g BW)		
									No.	Mean
Absolute	0	No.	6	6	6	6	6	6		
		Mean	430	2.07	439	1.40	12.15	0.69	3.05	64
		S.D.	10	0.08	102	0.12	0.97	0.11	0.20	7
	250	No.	6	6	6	6	6	6	6	
		Mean	400	2.02	453	1.34	11.77	0.73	2.91	62
		S.D.	37	0.04	141	0.12	1.23	0.11	0.37	7
Relative	0	No.	6	6	6	6	6	6		
		Mean	0.48	102	0.33	2.83	0.16	0.71	15	
		S.D.	0.02	22	0.03	0.21	0.02	0.04	2	
	250	No.	6	6	6	6	6	6	6	
		Mean	0.51	114	0.33	2.95	0.19	0.72	16	
		S.D.	0.04	39	0.02	0.20	0.02	0.04	2	

No significant difference between treated group and control group.

Table 8-6 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Week 2 of recovery)
 Male

Dose mg/kg			Testis	Epididymis
			(R+L) g(g/100g BW)	(R+L) mg(mg/100g BW)
Absolute	0	No.	6	6
		Mean	3.27	1142
		S.D.	0.16	66
	250	No.	6	6
		Mean	3.23	1130
		S.D.	0.16	58
Relative	0	No.	6	6
		Mean	0.76	266
		S.D.	0.03	20
	250	No.	6	6
		Mean	0.82	284
		S.D.	0.10	19

No significant difference between treated group and control group.

Table 8-7 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Week 2 of recovery)
 Female

Dose mg/kg	Body weight g	Brain g(g/100g BW)	Thymus mg(mg/100g BW)	Heart g(g/100g BW)	Liver g(g/100g BW)	Spleen g(g/100g BW)	Kidney (R+L) g(g/100g BW)	Adrenal (R+L) mg(mg/100g BW)	
									No.
Absolute	0	No.	6	6	6	6	6	6	
		Mean	234	1.83	427	0.84	6.37	0.51	1.71
		S.D.	28	0.05	95	0.08	0.94	0.14	0.19
	250	No.	6	6	6	6	6	6	6
		Mean	227	1.88	315*	0.82	6.62	0.47	1.74
		S.D.	9	0.10	77T	0.05	0.54	0.05	0.06
Relative	0	No.	6	6	6	6	6	6	
		Mean	0.79	182	0.36	2.73	0.22	0.73	32
		S.D.	0.09	30	0.02	0.13	0.04	0.05	5
	250	No.	6	6	6	6	6	6	6
		Mean	0.83	139*	0.36	2.92	0.21	0.77	33
		S.D.	0.07	35T	0.02	0.23	0.03	0.04	3

* : p<0.05 (Significant difference from control group)
 T : Student's t-test

Table 8-8 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Absolute and relative organ weight (Week 2 of recovery)
 Female

	Dose mg/kg		Ovary	Uterus
			(R+L) mg(mg/100g BW)	mg(mg/100g BW)
Absolute	0	No.	6	6
		Mean	85.8	501
		S.D.	13.1	78
	250	No.	6	6
		Mean	88.0	478
		S.D.	13.4	56
Relative	0	No.	6	6
		Mean	37.0	215
		S.D.	6.1	22
	250	No.	6	6
		Mean	39.0	211
		S.D.	6.6	28

No significant difference between treated group and control group.

Table 9-1

A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Gross pathological findings (Main group)

Organs	Sex:	M	M	M	M	F	F	F	F
Findings	Dose(mg/kg):	0	15	60	250	0	15	60	250
	Number:	6	6	6	6	6	6	6	6
Testis									
Small		1	1	0	1	-	-	-	-

Table 9-2

A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Gross pathological findings (Recovery group)

Organs	Dose (mg/kg):	Sex: Number:	M	M	F	F
Findings			0 6	250 6	0 6	250 6
Kidney Dilatation, pelvic			1	0	0	0

Table 10-1 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Histopathological findings (Main group)

Organs	Sex:	M	M	M	M	F	F	F	F
Findings	Dose(mg/kg): Number:	0 6	15 6	60 6	250 6	0 6	15 6	60 6	250 6
Adrenal									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Bone+Bone marrow, femoral									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Bone+Bone marrow, sternal									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Cerebellum									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Cerebrum									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Epididymis									
Number examined		6	0	0	6	-	-	-	-
Not remarkable		5	0	0	5	-	-	-	-
Decreased sperm, luminal		1	0	0	1	-	-	-	-
minimal		1	0	0	0	-	-	-	-
severe		0	0	0	1	-	-	-	-
Eye									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Heart									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		5	0	0	4	4	0	0	6
Myocarditis, focal		1	0	0	2	2	0	0	0
minimal		1	0	0	2	2	0	0	0
Intestine, cecum									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	5	6	0	0	5
Cell infiltration, lamina propria		0	0	0	1	0	0	0	1
minimal		0	0	0	1	0	0	0	1
Intestine, colon									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Intestine, duodenum									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Intestine, ileum(Peyer's patch)									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Intestine, jejunum									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Intestine, rectum									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6

-: Not applicable

Table 10-2 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
Histopathological findings (Main group)

Organs	Sex: Dose(mg/kg): Number:	M 0 6	M 15 6	M 60 6	M 250 6	F 0 6	F 15 6	F 60 6	F 250 6
Kidney									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		3	0	0	2	4	0	0	5
Dilatation,tubular,cystic		1	0	0	1	0	0	0	0
minimal		1	0	0	1	0	0	0	0
Regeneration,tubular		1	0	0	3	2	0	0	0
minimal		1	0	0	3	2	0	0	0
Mineralization,medullary		1	0	0	2	0	0	0	1
minimal		1	0	0	2	0	0	0	1
Liver									
Number examined		6	6	6	6	6	6	6	6
Not remarkable		2	2	1	0	0	0	0	0
Microgranuloma		4	4	1	3	6	6	6	5
minimal		4	4	1	3	6	6	6	5
Hypertrophy,hepatocyte,									
centrilobular		0	0	5	6	0	0	6	6
minimal		0	0	5	0	0	0	6	0
mild		0	0	0	6	0	0	0	6
Lung(bronchus)									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		5	0	0	5	5	0	0	6
Cell infiltration		1	0	0	0	0	0	0	0
minimal		1	0	0	0	0	0	0	0
Accumulation,foamy cell		0	0	0	1	1	0	0	0
minimal		0	0	0	1	1	0	0	0
Lymph node,mesenteric									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Lymph node,submandibular									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Ovary									
Number examined		-	-	-	-	6	0	0	6
Not remarkable		-	-	-	-	6	0	0	6
Parathyroid									
Number examined		6	0	0	6	6	0	0	5
Not remarkable		6	0	0	6	6	0	0	5
No sample		0	0	0	0	0	0	0	1
Pituitary									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Prostate									
Number examined		6	0	0	6	-	-	-	-
Not remarkable		3	0	0	3	-	-	-	-
Cell infiltration,ventral lobe		2	0	0	3	-	-	-	-
minimal		2	0	0	3	-	-	-	-
Cell infiltration,dorsolateral lobe		1	0	0	0	-	-	-	-
minimal		1	0	0	0	-	-	-	-
Sciatic nerve									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Skeletal muscle,femoral									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6

-: Not applicable

Table 10-3

A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Histopathological findings (Main group)

Organs	Sex:	M	M	M	M	F	F	F	F
Findings	Dose(mg/kg): Number:	0 6	15 6	60 6	250 6	0 6	15 6	60 6	250 6
Spinal cord, thoracic									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Spleen									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Stomach									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Testis									
Number examined		6	1	0	6	-	-	-	-
Not remarkable		5	0	0	5	-	-	-	-
Atrophy, seminiferous tubular		1	1	0	1	-	-	-	-
minimal		1	0	0	0	-	-	-	-
moderate		0	1	0	0	-	-	-	-
severe		0	0	0	1	-	-	-	-
Thymus									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Thyroid									
Number examined		6	6	6	6	6	6	6	6
Not remarkable		2	2	5	2	2	4	3	4
Ectopic thymus		1	1	0	0	1	1	2	1
minimal		1	1	0	0	1	1	2	1
Cyst, ultimobranchial		4	4	0	2	4	1	1	1
minimal		4	4	0	2	4	1	1	1
Hypertrophy, follicular cell		0	0	1	3	0	0	0	2
minimal		0	0	1	3	0	0	0	2
Trachea									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Urinary bladder									
Number examined		6	0	0	6	6	0	0	6
Not remarkable		6	0	0	6	6	0	0	6
Uterus									
Number examined		-	-	-	-	6	0	0	6
Not remarkable		-	-	-	-	6	0	0	6

-: Not applicable

Table 10-4 A 28-day oral toxicity study of 2,6-di-tert-butyl-4-ethylphenol in rats with a recovery period of 2 weeks
 Histopathological findings (Recovery group)

Organs	Sex:	M	M	F	F
Findings	Dose(mg/kg): Number:	0 6	250 6	0 6	250 6
Kidney					
Number examined		1	0	0	0
Dilatation, pelvic		1	0	0	0
mild		1	0	0	0
Regeneration, tubular		1	0	0	0
minimal		1	0	0	0
Mineralization, medullary		1	0	0	0
minimal		1	0	0	0
Liver					
Number examined		6	6	6	6
Not remarkable		1	1	0	0
Necrosis, focal		0	1	0	0
mild		0	1	0	0
Microgranuloma		5	5	6	6
minimal		5	5	6	6
Thyroid					
Number examined		6	6	6	6
Not remarkable		4	3	3	4
Cyst, ultimobranchial		2	3	3	2
minimal		2	3	3	2

要 約

当該試験条件下において、2-ナフチルイソブチルエーテルには遺伝子突然変異を誘起する作用がないものと判断した。

2-ナフチルイソブチルエーテルの遺伝子突然変異誘発性を検討するため、ネズミチフス菌 (*Salmonella typhimurium*) TA100 株, TA98 株, TA1535 株および TA1537 株ならびに大腸菌 (*Escherichia coli*) WP2*uvrA* 株を用いた復帰突然変異試験を行った。

その結果、2-ナフチルイソブチルエーテル処理では、0.105~5000 μg /プレートのおいづれの用量においても、ラット肝ミクロソーム (S9) 添加の有無にかかわらず、陰性対照の2倍以上の復帰変異コロニー数の増加は認められなかった。

陽性対照物質は、各試験菌株に対し明確な突然変異誘発作用を示した。

また、用量設定試験、同一追試験および本試験により、試験結果の再現性が確認された。