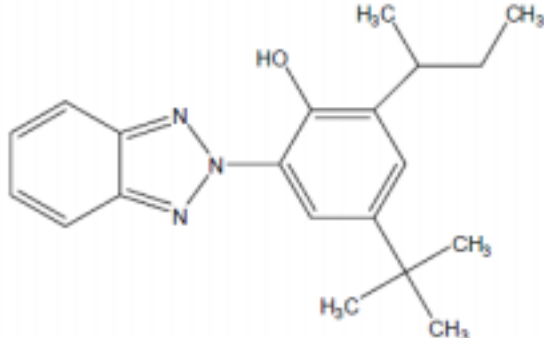


**Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test(OECD TG422) -Data Sheet-**

MITI No.	5-3604		CAS No.	36437-37-3
Test substance	Chemical name	: 2-(2 <i>H</i> -Benzotriazol-2-yl)-4-( <i>tert</i> -butyl)-6-( <i>sec</i> -butyl)phenol		
	Synonym	: Phenol, 2-(2 <i>H</i> -benzotriazol-2-yl)-4-(1,1-dimethylethyl)-6-(1-methylpropyl)-		
	Molecular weight	: 323.44		
	Molecular formula	: C <sub>20</sub> H <sub>25</sub> N <sub>3</sub> O		
	Structural formula	:		
				
Appearance	Pale yellow powder			
Solubility	<1.0 mg/L (water)			
Biodegradation	Non-biodegradable			
Bioconcentration	High bioconcentration			
Purity	100%			
Range finding study	Dose level	0, 30, 100, 300, 1,000 mg/kg/day		
	Dosing period	14 days		
	Results	1,000: Death (M 5/5, F1/5), Loose stool (M, F), Body weight ↓ (M, F), AST, ALT, Alb, A/G ↑ (F), RBC, Hgb, Hct ↓ (F), Hypertrophy of centrilobular hepatocytes in the liver (F) 300: Hgb, Hct ↓ (M, F), RBC ↓ (F), AST, ALT, LDH ↑ (M), Alb, A/G ↑ (M, F), Liver and kidney weights ↑ (M, F), Spleen weight ↓ (F), Hypertrophy of centrilobular hepatocytes in the liver (M, F) 100: Hgb, Hct ↓ (M), AST, ALT, LDH, Alb, A/G ↑ (M), Liver and kidney weights ↑ (M), Hypertrophy of centrilobular hepatocytes in the liver (M) 30: Alb, A/G ↑ (M), Liver and kidney weights ↑ (M), Hypertrophy of centrilobular hepatocytes in the liver (M)		
<b>Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test(OECD TG422)</b>				
Experimental Method	Test animals	CrI:CD (SD) male and female rats, 10 weeks old (initiation of dosing)		
	Administration	Oral gavage      Vehicle: Olive oil		
	Dose level	0, 0.5, 2.5, 12.5 mg/kg/day,    Recovery 0, 12.5 mg/kg/day (R12.5)		
	Dosing period	M: 42days F: 41 - 55 days (from 14 days before mating to day 4 of lactation)		

Results of Repeated dose toxicity	Clinical signs	NE
	FOB	NE
	Body weight	NE
	Food consumption	NE
	Urinalysis	NE
	Hematology	NE
	Blood chemistry	M: TG ↓ (0.5, 2.5, 12.5), Alb, A/G, ALP ↑ (12.5) F: TG, PL ↓ (0.5, 2.5, 12.5), AST ↑ (12.5)
	Organ weight	M: Liver A ↑, R ↑ (12.5), Kidney R ↑ (12.5) F: NE
	Histopathology	NE
	Target organ	M: Liver F: Liver (based on the results of range finding study)
Results of Reproduction and developmental toxicity	Parent	NE
	Offspring	NE
NOAEL		Repeated dose toxicity: M 12.5, F 12.5 Reproductive and developmental toxicity: 12.5
	Basis for NOAEL	Repeated dose toxicity: M, F 12.5: No adverse effect  Reproductive and developmental toxicity: 12.5: No adverse effect
NOEL		Repeated dose toxicity: M less than 0.5, F less than 0.5 Reproductive and developmental toxicity: 12.5
	Basis for NOEL	Repeated dose toxicity: M 0.5: TG ↓ F 0.5: TG ↓, PL ↓  Reproductive and developmental toxicity: No effect
Note	The Joint Council concluded that the NOEL for the repeated dose toxicity of 2-(2H-1,2,3-benzotirazole-2-yl)-4,6-di-tert-butylphenol (analog of the test substance) in rats was 0.1 mg/kg/day.	

↑; increase, ↓; decrease

M; male, F; female

A; absolute organ weight, R; relative organ weight

**The data was reviewed by Hazard-Data Evaluation Committee of National Institute of Technology and Evaluation in fiscal 2007.**