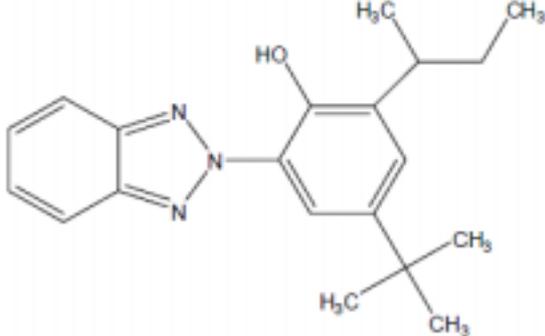


Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test(OECD TG422) -Data Sheet-

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 ₂₀ H ₂₅ N ₃ 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	<p>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)</p> <p>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)</p> <p>100: Hgb, Hct ↓ (M), AST, ALT, LDH, Alb, A/G ↑ (M), Liver and kidney weights ↑ (M), Hypertrophy of centrilobular hepatocytes in the liver (M)</p> <p>30: Alb, A/G ↑ (M), Liver and kidney weights ↑ (M), Hypertrophy of centrilobular hepatocytes in the liver (M)</p>	
Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test(OECD TG422)			
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.