

G085
Tetramethylbutylphenol [140-66-9]

Results of Testing

Chemical Name	CAS No.	Study Code/Type	Protocol/Guideline	Species	Exposure	Dose/Concentration	No. per Group	Results	Reference
4-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9	EEATOX Algae acute toxicity	TSCA Protocol/ Guideline (docket OPTS-42042)	Green algae	static, 96 hr	1.0, 1.8, 3.2, 5.6, 10 mg/L (nominal)	Not applicable	The 96-hour no-observed-effect concentration was <1.0 mg/L. The study was performed following the TSCA guidelines for algal acute toxicity. The EC ₅₀ for growth was 1.9 mg/L, with a 95% confidence interval of 1.0 to 2.7 mg/L.	50 FR 5421; 2/6/85 OTS0507489
4-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9	EEATOX Acute fish toxicity	Non-TSCA Protocol/Guideline (docket OPTS-42042)	Fathead minnow	flow-through, 96 hr	0.041, 0.077, 0.15, 0.34, 0.63 mg/L	20	The 96-hour LC ₅₀ was 0.25 mg/L, with a corresponding 95% confidence interval of 0.15 to 0.34 mg/L. The no-observed-effect concentration was 0.077 mg/L. Surfacing, loss of equilibrium, dark discoloration, and quiescence were observed in the 0.18, 0.37, and 0.63 mg/L test concentrations.	50 FR 5421; 2/6/85 OTS0507489
4-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9	EEATOX Acute fish toxicity	Non-TSCA Protocol/Guideline (docket OPTS-42042)	<i>Salmo gairdneri</i> (Rainbow trout)	flow-through, 14 d	0.035, 0.084, 0.17, 0.32, 0.71 mg/L	20	The 14-day no-observed-effect concentration was calculated to be 0.084 mg/L for the test material. The lethal threshold was reached on day 10 of the study, and was estimated to be 0.12 mg/L. The 95% confidence interval was 0.084 to 0.17 mg/L.	50 FR 5421; 2/6/85 OTS0507489
4-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9	EEATOX Acute daphnid toxicity	Non-TSCA Protocol/Guideline (docket OPTS-42042)	<i>Daphnia magna</i>	flow-through, 48 hr	0.063, 0.11, 0.19, 0.32, 0.94 mg/L	10	Based on lack of mortality and abnormal effects, the 48-hour no-observed-effect concentration was 0.11 mg/L for the test chemical. The LC ₅₀ and its corresponding 95% confidence interval was 0.27 mg/L and 0.19 to 0.32 mg/L, respectively.	50 FR 5421; 2/6/85 OTS0507489
4-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9	EECLIF Early life stage toxicity	Non-TSCA Protocol/Guideline (docket OPTS-42042)	<i>Salmo gairdneri</i> (Rainbow trout)	flow-through, 60 d post-hatch	0, 0.0061, 0.011, 0.022, 0.051, 0.091 mg/L	80 (20/replicate)	Survival of fry and growth (wet weight) were reduced at 0.022 mg/L and higher; fry growth (length) was reduced at 0.011 and higher. The maximum acceptable toxicant concentration (MATC) was between 0.0061 and 0.11 mg/L. The NOEC was 0.0061 mg/L.	52 FR 2152; 1/20/87 OTS0527139
4-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9	EFPCHEWSOL Water solubility	Non-TSCA Protocol/Guideline (docket OPTS-42042)	Not applicable	environmental cham- ber at 22 ± 2 °C, deionized water and natural water, 24 hr	10 mL	Not applicable	Solubilities in deionized water and natural water determined as the mean of duplicate analyses, 3 consecutive samples, were 17 and 19 µg/mL, respectively.	50 FR 5421; 2/6/85 OTS0527138