

US EPA ARCHIVE DOCUMENT

4-13-82  
Duplicate

DATA EVALUATION

1. CHEMICAL: 3-phenoxybenzoic acid degrade
2. FORMULATION: 73 % active ingredient
3. CITATION: Edwards, P.J., S.M. Brown, and H. Swaine (1980)  
3-phenoxybenzoic acid: Toxicity to first instar Daphnia magna. Unpublished report by the Plant Protection Division, submitted 12/28/81 by ICI Americas Inc., Wilmington, Delaware  
  
EPA Accession No. 070562
4. REVIEWED BY: Thomas B. Johnston  
Biologist, EEB/HED
5. REVIEW DATE: April 13, 1982
5. TEST TYPE: 48-hr static acute EC<sub>50</sub>
7. REPORTED RESULTS: The reported acute 48-hr EC<sub>50</sub> of 3-phenoxybenzoic acid for Daphnia magna is 111 ppm, with 95% confidence limits of 82 and 147 ppm.
3. REVIEWER'S CONCLUSIONS: This study is scientifically sound, and fulfills USEPA guideline requirements for an acute toxicity test on a major degradation product using an aquatic invertebrate. With a 48-hr acute EC<sub>50</sub> of 111 ppm, 3-phenoxybenzoic acid is practically non-toxic to aquatic invertebrates.

## MATERIALS/METHODS

Methods used generally followed USEPA guidelines. Mean measured concentrations were used to calculate EC<sub>50</sub>s because of precipitation at the higher concentrations. Tests were run at 17°C. Five tests were run in all, but tests I and II were eliminated because of high control mortality and inconsistent test mortalities.

## STATISTICAL ANALYSES

Data were analyzed by weighted linear regression of log concentration plotted against logit transformation of the response.

## RESULTS

TEST IV		TEST IV	
Mean Measured Concentrations (ppm)	No. Dead/No. Exposed	Mean Measured Concentration (ppm)	Exposed No. Dead/No.
268	30/30	245	30/30
183	21/30	157	17/30
101	29/30	82	0/30
51	0/30	41	1/30
25	0/30	20	1/30
Control	0/30	10.4	0/30
48-hr EC <sub>50</sub> = 111 ppm (82-147 ppm)		Control	0/30

## CONCLUSIONS:

Validation Category: Core

Category Rationale: N/A

Category Repairability: N/A

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