

ORIGINAL

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**DOES NOT CONTAIN CBI**



Title of Report

STATIC ACUTE 96-HOUR LC50<sup>1</sup> OF TO THE  
FATHEAD MINNOW, Pimephales promelas

Date Issued: November 7, 1985

Title of Report

STATIC ACUTE 96-HOUR LC50 OF TO THE  
FATHEAD MINNOW, Pimephales promelas

Summary

exhibited extreme acute toxicity to a warm freshwater fish the fathead minnow under static un aerated test conditions during a 96-hour exposure period. The 96-hour LC50 was 0.43 mg/L. A 95% confidence interval on the LC50 could not be calculated.

Report by: \_\_\_\_\_

11/5/85  
Mo/Day/Yr

Study Director: \_\_\_\_\_

11/5/85  
Mo/Day/Yr

Approved by: \_\_\_\_\_

11/5/85  
Mo/Day/Yr

CLW/RGS/CDL/eqg/AQRP 7.12

There are 7 pages in this report.

Material Tested

Quarternary ammonium  
compounds; alkyl(C8-C18)-  
bis(2-hydroxypropyl)-  
(phenylmethyl)-, chlorides

Synonyms

o N-Alkyl(C8-C18)-N,N-  
bis(2-hydroxypropyl)-  
benzenemethanaminium chloride

Sponsor

Test Facility

Study Initiated/Completed

Initiated on 9/16/85 and completed on 9/27/85.  
Analyst:  
There are / pages in this report.

Distribution

Other Codes

Composition

o wt.% Active Ingredient:  
N-Alkyl(C8-C18)-N,N-bis-  
(2-hydroxypropyl)benzene-  
methanaminium chloride

o wt.% Water

CAS Registry Number

Not applicable

Material Submitted by

## Introduction

The purpose of this study was to determine the static acute toxicity of Pimephales promelas to a warm freshwater fish the fathead minnow.

## Materials and Methods

This study was conducted according to Good Laboratory Practices as described under the Toxic Substances Control Act. The procedures used in this study are outlined in Environmental Biology Section Aquatic Standard Operating Procedure 102.

The test material, in its original form (40% aqueous solution) was introduced directly into 5-L all glass aquaria and diluted with laboratory well water to yield the desired nominal exposure concentrations in 4-L final volumes. Two identical vessels each containing only laboratory well water were designated as the H<sub>2</sub>O controls.

Stability of the test and control materials in well water was not determined because it is not a critical factor in static acute aquatic tests.

Five juvenile, unsexed fathead minnows from Haskell laboratory-bred stock, with a 2.1 cm mean standard length (range 1.8 to 2.4 cm) and a 0.13 g mean wet weight (range 0.05 to 0.22 g) were randomly placed into each test vessel. These fathead minnows were maintained at Haskell Laboratory for approximately 93 days before being used for this test. The fathead minnows were identified by labeling the culture and test vessels and were not fed for 48 hours prior to nor during the exposure. The test solutions were not aerated, temperature was maintained between 22.1 and 22.4°C, and photoperiod was maintained at 16 hours light; 8 hours dark. Mortality counts and observations were made every 24 hours during the 96-hour exposure period.

Dissolved oxygen and pH were measured in the H<sub>2</sub>O controls and in the low, medium, and high test concentrations at the beginning of the test and at 24-hour intervals during the 96-hour exposure period. When complete mortality occurred before the end of the 96-hr exposure period, one final but no additional measurement of D.O and pH was made. Total alkalinity, hardness (EDTA) and conductivity were measured at the beginning of the test in the H<sub>2</sub>O control. Mortality data were transformed to log (10) scale and the 96-hr LC50 and 95% confidence interval were calculated by probit analysis (Finney, 1971).

### Records

All records from this test and the final report will be maintained at Haskell Laboratory for Toxicology and Industrial Medicine or archived at the Du Pont Hall of Records

### Results

Test results for fathead minnows exposed to are  
presented in Table I. exhibited extreme acute toxicity to  
fathead minnows under static un aerated test conditions during a 96-hour  
exposure period. The 96-hr LC50 was 0.43 mg/L. A 95% confidence interval  
on the LC50 could not be calculated.

The chemical and physical parameters measured during the test of H-15,976 are reported in Table II. All were within acceptable ranges for this study.

### Discussion and Conclusion

has been tested for its static acute toxicity with the fathead minnow, a warm freshwater fish. Under the conditions of this test was found to exhibit extreme acute toxicity.

### Footnote

<sup>1</sup> LC50 = That concentration which is lethal to 50% of a test population during the specified time period.

### Reference

Finney, D. J., (1971). Probit Analysis, 3d Ed., Cambridge University Press, 333 pp.

Substantiation of Confidentiality Claims  
Filing #122

1. For what period of time do you assert this confidentiality claim? If the claim is to extend until a certain event or point in time, please indicate that event or time period. Explain why the information should remain confidential until such event or time.
  - A1. We request confidentiality of chemical composition and linkage to trade name and \_\_\_\_\_ for as long as the product is commercial. Disclosure while the product is commercial would adversely impact \_\_\_\_\_ competitive position in this market because others would be able to make similar offerings. The \_\_\_\_\_ is very competitive and performance-driven. Performance is directly related to the chemical composition of the product being offered for sale.
2. Have there been any confidentiality determinations made by EPA, other Federal agencies, or courts in connection with this information? If so, please enclose copies.
  - A2. Not to the best of our knowledge.
3. Has any information that you are claiming as confidential been disclosed to any individuals or entities (including governmental agencies) outside your company? If so, explain the circumstances of such disclosure. Will the information be disclosed to such persons or entities in the future? If so, what restrictions, if any, apply to the use of further disclosure of the information?
  - A3. Chemical composition is not normally disclosed. If disclosure is required for technical or business reasons it is done under secrecy/confidentiality agreements which prohibit public disclosure by the recipient of this information. The chemical is described generically or its composition is defined as a trade secret on MSDSs and labels. Disclosures to governmental agencies are under CBI claims.
4. Briefly describe any physical or procedural restrictions within your company relating to the use and storage of the information you are claiming as confidential. What other steps, if any, have you taken to prevent undesired disclosure of the information during its use or when an employee leaves your company?
  - A4. Confidential information is disclosed within \_\_\_\_\_ on a need to know basis only. Employees are required to sign agreements when they begin employment with the Company to hold confidential information confidential and to only make disclosures when safeguards to protect such information (e.g. secrecy agreements) are in place.

5. Does the information claimed as confidential appear or is it referred to in any of items listed below:

- advertising or promotional materials for the chemical or end product containing it;
- safety data sheets or other similar materials for the chemical or the end product containing it.
- professional or trade publications; or
- any other media available to the public or to your competitors

If you answered yes to any of the above questions, you must indicate where the information appears and explain why it should nonetheless be treated as confidential.

A5. The information claimed confidential is not disclosed on any of the items listed.

6. Would disclosure of this information be likely to result in substantial harm to your competitive position? If so, you must specifically describe the alleged harmful effects and indicate why they should be considered to be substantial. Also, you must describe how disclosure of the information would cause the harm.

A6. See Answer # 1. The markets into which the subject product is sold are very competitive with many offerings available to customers. The key to successful market penetration and holding is technical performance of the product in question. Technical performance is tied closely and in some cases is wholly dependent on chemical composition. Therefore, disclosure of chemical composition or the linkage between chemical composition and trade name or   
 would provide competitors with invaluable information with which to compete against . Since has expended significant research effort (money and time) in developing this chemical and bringing it to market, disclosure and consequent use by competitors would cause us significant business harm. Not only would others be able to offer the same product, but because they will not have spent money on research or market development, they could undersell and thereby dominate the market.

7. If the information in question is "health and safety data" pursuant to 40 CFR Part 2.306(3)(i), do you assert that disclosure of the information you are claiming as confidential would reveal:

- a) confidential process information;
- b) confidential proportions of a mixture; or
- c) information unrelated to the effects of the substance on human health or the environment?

If your answer to any of the above questions is yes, you must explain how such information would be revealed.

A7. Not applicable. The information being claimed confidential is not health and safety data.

kddF#107