

US EPA ARCHIVE DOCUMENT

Shaughnessy No: 069149

Date Out of EAB: NOV 05 1985

To: John Lee  
Product Manager 31  
Registration Division (TS-767)

From: Samuel M. Creeger, Chief *SML*  
Environmental Chemistry Review Section 1  
Exposure Assessment Branch  
Hazard Evaluation Division TS-769c

**COPY**

Attached, please find the EAB review of:

Reg./File # : 1839-RGE

Chemical Name: Didecyl dimethyl ammonium chloride

Type Product : Microbiocide

Product Name : 5% BTC 99 Swimming Pool Algaecide

Company Name : Onyx Chemical Company

Purpose : Response to previous review.

Action Code : 161

EAB #(s) : 5918

Date Received : 9/12/85

TAIS Code: 302

Date Completed: 10/15/85

Reviewing Time: 1.0 day

Deferrals to:

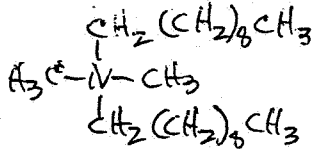
           Ecological Effects Branch

           Residue Chemistry Branch

           Toxicology Branch

1.

1. CHEMICAL:                    Common Name- didecyl dimethyl ammonium chloride  
   Chemical Name- as above  
   Trade Name- 5% BTC 99 Swimming Pool Algaecide  
   Chemical Structure-



2. TEST MATERIAL: Not applicable.

3. STUDY/ACTION TYPE: Onyx Chemical is responding to EAB comments in our 5 Mar '85 review, in which we stated that the minimum data requirements for a swimming pool algaecide are hydrolysis and aqueous photolysis. Onyx is submitting two short reports that address the question of the need for these studies. Their letter (attached) summarizes these reports.

4. STUDY IDENTIFICATION: Not applicable.

5. REVIEWED BY:

Herbert L. Manning, Ph.D.  
Microbiologist  
EAB/HED

Signature: *Herbert L. Manning*  
Date: 5 Nov 1985

6. APPROVED BY:

Samuel M. Creeger  
Chief, Section 1  
EAB/HED

Signature: *Sam M. Creeger*  
Date: NOV 05 1985

7. CONCLUSION:

EAB does not have any environmental fate data in our files on this chemical. We looked carefully at the two reports and have concluded the following:

Hydrolysis- The report tests BTC 99 at a 50% concentration, which is considerably greater than the application rate for a swimming pool. The test concentration used in the report should closely approximate the use concentration. A 50% concentration of a product would probably show less hydrolysis than would occur at use concentration.

In order for EAB to waive the study, the registrant should refer to the open scientific literature and supply us with a reference(s) to support their contention that hydrolysis of tetra alkyl ammonium compounds, e.g., quaternary ammonium compounds, does not occur in water under conditions typical of swimming pools.

We feel Onyx's position that BTC 99 is stable to hydrolysis is possibly correct, but we need adequate documentation for it.

photolysis- The report adequately shows that the wavelengths of sunlight responsible for chemical photolysis are not absorbed by BTC 99 and would not result in photodegradation in swimming pools. ←

The information supports the waiver of this data requirement.

#### 8. RECOMMENDATION:

EAB accepts the report on the lack of absorption of light by BTC as supporting a waiver of this data requirement.

The conclusion that BTC is stable to hydrolysis may be correct, but the use of a 50% solution requires us to ask for references documenting that assumption.

#### 9. BACKGROUND:

##### A. Introduction

See Section 3 of this review.

#### 10. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES:

Not applicable.

#### 11. COMPLETION OF ONE-LINER:

Not applicable.

#### 12. CONFIDENTIAL APPENDIX:

Supporting information is included.

3.

12. CONFIDENTIAL APPENDIX

Didecyl dimethyl ammonium chloride review

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Pages 5 through 8 are not included in this copy.

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The material not included contains the following type of information:

- Identity of product inert ingredients
  - Identity of product impurities
  - Description of the product manufacturing process
  - Description of product quality control procedures
  - Identity of the source of product ingredients
  - Sales or other commercial/financial information
  - A draft product label
  - The product confidential statement of formula
  - Information about a pending registration action
  - FIFRA registration data
  - The document is a duplicate of page(s) \_\_\_\_\_
  - The document is not responsive to the request
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The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

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