

US EPA ARCHIVE DOCUMENT

111801

SHAUGHNESSEY NO.

5
REVIEW NO.

EEB BRANCH REVIEW

DATE: IN ~~8-27-80~~ 9-3-80 OUT ~~10-31-80~~ 11-21-80

FILE OR REG. NO. 10182-RO

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED 8-27-80

DATE OF SUBMISSION _____

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCT(S): I, D, H, F, N, R, S Bacteria And Algae

DATA ACCESSION NO(S). 243099

PRODUCT MANAGER NO. A. Castillo (32)

PRODUCT NAME(S) Baquacil

COMPANY NAME ICI Americas, INC.

SUBMISSION PURPOSE Data Validation

SHAUGHNESSEY NO. CHEMICAL, & FORMULATION & A.I.

111801 Poly (iminoimidocarbonyiminoimicarboxymino- 20
hexamethylene)

100.0 Pesticide Name: Baquacil

100.3 Submission Purpose

1. Submission of 96-hour LC50 Rainbow Trout to support registration
2. " " Bluegill Sunfish " registration
3. " 48-hour LC50 Daphnia Magna " registration

101.0 Chemical and Physical Properties

101.1 Chemical

Poly(iminoimidocarbonyliminoimicarbonyliminohexamethylenehydrochloride)

101.2 Common Name

Baquacil

103 Toxicological Properties

48-hour LC50 for Daphnia Magna Straus (0.18 ppm)
96-hour LC50 for Bluegill Sunfish (0.62 ppm)
96-hour LC50 for Rainbow Trout (3.2 mg/L)

105.0 Conclusion

The 48-hour aquatic invertebrate study is scientifically sound and with an LC50 of 0.18 ppm of Baquacil is highly toxic to Daphnia Magna. The study does fulfill the requirements for an aquatic invertebrate acute LC50.

The 96-hour warmwater fish study is not sound and does not fulfill the requirements for a warmwater fish acute LC50 for the following reason: A 21% dissolved oxygen does not meet the guideline requirements, which states the dissolved oxygen after 48 hour must be between 40% and 100% saturation.

The 96-hour coldwater fish study indicates Baquacil is moderately toxic to Rainbow Trout with an LC50 of 3.2 mg/L. This study does not fulfill the guidelines requirements for a coldwater fish study for the following reason:

- A. The fish weighed 16.4 g instead of 0.5 to 1.0 gram as outlined in EPA protocol of April 1975.
- B. The binomial is not an acceptable method in calculating fish LC50 values. One treatment other than the control must have killed or affected less than 35% of the organisms exposed to it,

and one treatment must have killed or affected more than 65% of the organisms.

Bluegill and Rainbow Trout studies are unacceptable to support registration. However, considering the use pattern EEB concurs with the proposed registration provided the registrant agrees to submit acceptable studies for trout and bluegill.

Environmental Hazard Statement: Treated pool effluent should not be discharged where it will drain into lakes, ponds, or streams.

Curtis Laird 11-20-80
Curtis Laird
Fishery Biologist
Ecological Effects Branch/HED

Norman Cook 11-20-80
Norm Cook
Head, Section #2
Ecological Effects Branch/HED

Clayton Bushong 11/21/80
Clayton Bushong
Chief
Ecological Effects Branch/HED