

TECHNICAL SUPPORT SECTION EFFICACY REVIEW - I

Disinfectants Branch

IN 5-20-82 CUT 6-11-82

*William E Campbell Jr.* *6/11/82*

Reviewed by William E. Campbell, Jr. Date 6-11-82

EPA Reg. No. or File Symbol 10182-19

EPA Petition or EUP No. 10182-EUP-11

Date Division Received 4-22-82

Type Product(s): I, (D) H, F, N, R, S Swimming Pool

Data Accession No(s). 247539

Product Mgr. No. 32 Castillo

Product Name(s) Baquacil

Company Name(s) ICI Americas, Inc.

Submission Purpose Final report/Results of the 1980 and 1981  
EUP Program.

Chemical & Formulation Liquid Concentrate / Product weight, 8.816 lbs/gal/.

Active Ingredient(s): 3

Poly(iminoimidocarbonylimino-  
imidocarbonyliminohexamethylene  
hydrochloride) .....20

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200.0 Introduction

200.1 Use:

For experimental use only as a swimming pool water disinfectant and algicide.

200.2 Background information:

An EUP was issued on December 4, 1979 to evaluate the product for the use indicated in 200.1 above. Efficacy data generated from trials at seven public pools (two indoor and five outdoor) in two geographical areas (Pennsylvania and Tennessee) were submitted and found to be adequate to support efficacy of the product as a swimming pool water disinfectant. ICI Americas however, intends to market the product primarily to homeowners and is concerned that the labeling be appropriate for such use. Two extensions of the EUP were granted to evaluate labeling recommendations and/or supplemental chemical treatments.

201.0 Experimental Use Program

201.1 Objectives:

In 1980 the EUP program was running in approximately 100 pools in Pennsylvania, Delaware, Texas, North Carolina, and Arizona to evaluate the general adequacy of product labeling with respect to (1) instructions for conversion to Baquacil use; (2) instructions for test-kit use; (3) Baquacil consumption rates; (4) the extent of aesthetic and operational problems and the adequacy of proposed solutions and; (5) adequacy of the recommended supplemental products. The 1980 program results indicate the need to again focus on aesthetic and operational problems and supplemental pool chemical compatibility. Also, in finalizing literature for the product registration a reconversion procedure was added. Thus, the 1981 program proposed to focus on the following:

- a) whether aesthetic and operational problems homeowners experienced in the 1980 pool season can be overcome through a better maintenance program.
- b) whether any other available compatible chemicals might be more suitable for use in an overall Baquacil program.
- c) whether homeowners can cope with the reconversion procedure from Baquacil to chlorine.

All other aspects of the proposed program have not been changed (see the review of the extension request dated March 31, 1980).

SUMMARY AND CONCLUSIONS

The BAQUACIL EUP program for 1980 was conducted in 103 residential pools in Delaware/Pennsylvania, North Carolina and Texas. Cooperators were provided with product, some supplemental chemicals and literature. They were asked to convert their pools and operate on BAQUACIL using the label/literature as a guide. Also, they were requested to solve any problem encountered and to keep a record of the pools operation. If difficulties developed which the pool owners could not cope with, a technical field representative was available. These field representatives were also monitoring the pool periodically to ensure the smoothest operation possible.

The results of the 1980 season showed:

1. Cooperators coped well with conversion procedure.
2. Cooperators were able to use the test kits satisfactorily to maintain the proper level of BAQUACIL in the pools.
3. Cooperators found BAQUACIL required less maintenance with an average calculated dosing frequency of 14 days.
4. Cooperators reported algae, haze and clear green water as the major problems. However, successful remedial treatments were available for each of these problems.
5. Commercial nonchlorine based shock treatments (i.e., those based on potassium monopersulfate such as Free Shock and Oxy-Brite as well as chlorine based shock treatments or copper based algicides are not compatible with BAQUACIL treated pools.

The BAQUACIL EUP program in 1981 involved 63 residential pools in the same areas. The results of the second season demonstrated that:

1. The BAQUACIL pools, overwintered at least as well as chlorinated pools.
2. The average second season consumption rate for BAQUACIL was somewhat lower in 1981, 0.98 ppm/day.

3. The use of a complementary algicide on a maintenance schedule can be used to enhance algae control.
4. Generally, haze problems can be overcome by filtration, increased maintenance and, when necessary, supplemental clarifying agents (i.e., alum, Baqua-Shock, Sparkle-Up).
5. Cooperators were able to cope well with the BAQUACIL to halogen sanitizer procedure.

#### 201.3 MATERIAL USED

Originally, 13214 pounds of material were allocated for the swimming pool test program. Nine thousand two hundred fifty-four pounds were distributed and used in the 1980 and 1981 EUP program. The remaining 3960 pounds have been accounted for and are warehoused under the control of the company.

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Date Division Received 4-22-82

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Product Manager No. 32 Castillo

Product Name Baquacil

Company Name ICI Americas

202.0 Conclusions and Recommendations

We have no adverse comments on the final report for the EUP program.