

US EPA ARCHIVE DOCUMENT

4-1-76

EEE BRANCH REVIEW

DATE:	IN _____	OUT _____	IN _____	OUT _____	IN <u>3-4</u>	OUT <u>4-1-76</u>
	FISH & WILDLIFE		ENVIRONMENTAL CHEMISTRY		EFFICACY	

FILE OR REG. NO. 26693-E

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED 12-29-75

DATE OF SUBMISSION _____

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCT(S): (I) D, H, F, N, R, S _____

PRODUCT MGR. NO. 12

PRODUCT NAME(S) Killmaster II

COMPANY NAME Positive Formulators, Inc.

SUBMISSION PURPOSE New product

CHEMICAL & FORMULATION	Chlorpyrifos	<u>2.0%</u>
	Aromatic petroleum solvent.....	<u>1.2%</u>
	Petroleum distillate.....	<u>94.7%</u>

200.0 Introduction

This is a review of data referenced in support of label claims for a product containing 2% Dursban. Method of support 2.b.

200.1 Uses

For control of cockroaches, ants, silverfish, firebrants, crickets and spiders. 12 month residual activity claim.

200.2 Background

Killmaster II (26693-E) is essentially an identical product to the currently registered Killmaster (26693-1), differing only in that it contains 2% rather than 1% Dursban. The original Killmaster was submitted as a 2% formulation, but was reduced in active ingredient when registration was withheld for reasons of human safety. No efficacy data has apparently been provided other than that previously submitted in support of 26693-1

201.0 Data Summary

See attached xerox sheets.

The following is a brief summary of the data enclosed in Jacket 26693-1:

a. WARF Institute Test dated April 16, 1975

This test was designed to be similar to the proposed CSMA lucite ring test. The test method differed primarily in that no hides were provided to allow for avoidance. Painted plywood panels were the only panels tested. The panels were aged nine months, method of aging not specified, prior to testing. After 48 hours exposure, the average mortality counted in the 10 replicates of 10 german cockroaches each was 57%. Seventy-two hour exposure provided 95% mortality.

b. WARF Institute test dated June 4, 1974

No description of the test method was provided. It is assumed that the test was similar to that already described; differing in that the panels were unpainted plywood which were aged six months rather than nine. The formulation tested was the currently registered 1%. The preceding test was

undertaken utilizing the proposed 2 $\frac{1}{2}$ formulation. Average mortality recorded at 48 hours was 46%. Seventy-two hour mortality was not recorded due to there being considerable mortality experienced in the control groups.

c. University of Arizona letter dated September 20, 1973.

This letter and an attached data summary deal with the results obtained from household applications. The letter is largely testimonial in nature, providing no acceptable data. The results provided by the summary of the household tests are, likewise, of limited value. The infestation ratings provided by the summary were the result of only visual observations. Pretreatment trap counts may not be related to trap counts made after the application of the pesticide due to the pretreatment counts having been made over a 72 hour period while subsequent post-treatment counts were the result of only 24 hour exposure.

d. Positive Insect Exterminators, Inc. letters dated 6 July 1970, 26 August 1970, 27 May 1971, 16 July 1971, 18 January 1972, 7 February 1972, 7 July 1972 and 29 September 1972

These letters provide brief histories of individual premises treated with the 1 $\frac{1}{2}$ Killmaster formulation. They are essentially testimonial in nature and provide no supportive data. They do provide, however, some insight into the method and site of application under actual use conditions. While not specified on the proposed label, surfaces of concrete, block, ceramic tile and vinyl appear to be unavoidable application sites.

202.0. Conclusions

There is no doubt that this product possesses biological activity with respect to cockroaches. Likewise, there exists little doubt that residual control may be effected by its use. The duration of this residual control, however, is suspect. There is strong reason to believe that the claimed 12 month activity could not be effected on such surfaces as vinyl tile, concrete and masonry block. Although a 1 $\frac{1}{2}$ companion formulation had a claim for six month residual activity accepted on the basis of the data cited in this review, an extension of this claim to the 2 $\frac{1}{2}$ product is unwarranted. (The data contained in the Jacket, under current Section 3 regulations, would not support the claims made for the registered 1 $\frac{1}{2}$ product.) Residual activity data must be accrued from the testing of such surfaces as vinyl tile, concrete, and glass, metal or ceramic tile. The test method must be so designed as to allow for the ready avoidance of the treated panels.

No data was provided for ants, silverfish, firebrants, crickets or

spiders. Minimal data would be required to support claims for silverfish, crickets and spiders. It is unlikely, however, that a product of this nature could provide the claimed control of ants. Should the claim be altered to aids in reducing ant populations or a similar claim not specifically implying control, testing need only provide proof of continued biological activity over the duration of the residual activity claim.

202.1 Claims Supported by the data submitted

The claim for control of cockroaches is acceptable. No claim, however, may be made with respect to the duration of activity.

202.2 Claims not supported by the data submitted

The 12 month residual activity claim is not acceptable.

Data must be submitted which demonstrates continued product efficacy through the duration of the claimed period. In addition, test panels of concrete, vinyl tile and glass, metal or ceramic tile must be incorporated into the residual activity test program. The tests must be so designed as to allow free choice of treated and untreated areas by the insects. Sufficient food and water must be made available.

The claims for control of silverfish, firebrants, crickets and spiders are not acceptable.

Data demonstrating biological activity against each of the above species must be submitted. Residual activity data need not be generated as the data obtained from cockroach testing may be bridged.

The claim for control of ants is not acceptable.

A claim for control implies the elimination of the pest, which in the case of ants would include the destruction of the colony. As this product is not readily transported back to the colony, it is unlikely that a claim for control may be supported by data. With the provision of basic biological activity data, however, a lesser claim may be acceptable.

202.3.1 PM Note

The comments contained in sections 202.1 and 202.2 should be preceded by an indication to the registrant that he must show cause for increasing the active ingredient of his product. This may be accomplished by demonstrating more rapid elimination of the claimed pests, extended residual activity or other benefit to the user. Data must be provided to support whatever benefit is claimed.

Revised August