

Product Performance Data Evaluation Report
by Kevin J. Sweeney, Entomologist, Insecticides Branch

Kevin J. Sweeney
1/6/03

Date: January 6, 2003

Reviewer: Ann Sibold

Product: Phantom-Termiticide Insecticide

EPA Registration No. 241-392

PM: Joseph Tavano, Acting PM 10

Submission No: S623636

DP No: D286284

OPPTS Guideline: 810.3600

Chemical: 21.45% chlorfenapyr. Applied at 0.125% and 0.25% dilution for post-application to control of subterranean termites. Applied at 0.5% dilution for other pests including ants and cockroaches indoors.

Registrant submitted amended labeling. Label languages changes requested for termite uses and general pest control use. Outdoor applications requested to the surface of structures and to fire ants mounds.

Entomologist's comments and recommendations:

1. Where are the ASPCRO comments for this amendment? Has the registrant sent them to EPA yet?

2. Labeling

Page 1: acceptable.

Page 2: acceptable.

Page 3: Consult with Ann Sibold and the Environmental Fate and Effects Division concerning removal of the Ground Water Advisory statement.

Page 4: Proposed deletion is unacceptable. Retain " This label must be in the possession of the user at the time of pesticide application."

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

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To <i>Sunny O'Byrne</i> Dept./Agency	From <i>Ann Sibold</i> Phone #
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Page 5:

- A. Retain the language for wells and cisterns.
- B. Retain "barrier". Delete "treated zone" everywhere it appears on the label.
- C. The addition of the application for the control of the drywood termite could result in increased residential exposure with the current directions on the label. Revise the directions for drywood termite control. See page 14 below.
- D. Delete language referring to protection from termites. This product is not be applied as a preventive termite treatment. Product should only be applied to infested structures. The product also has no pre-construction use.

Page 6: acceptable.

Page 7: Remove reference to treated zone as directed above.

Page 8:

- E. Retain "barrier", delete "treatment".
- F. Retain 1 gallon of dilution per square foot. Delete the 0.25 gallon proposal.
- G. Remove references to "zone" or "treated zone".

Page 9:

- H. Addition of the term "minimum" is acceptable.
- I. Remove references to "zone" or "treated zone".

Page 10:

- J. Bath traps: The change from applying 2 gallons to 0.25 gallons is unacceptable. The application needs to be at least one gallon is volume per square foot.
- K. Remove references to "zone" or "treated zone".

Page 11:

- L. Hollow block foundations: Retain present language. The question of hollow block and void applications may need to be addressed at future ASPCRO meetings for all liquid termiticides since state regulation vary widely.

M. Addition of ProFoam is acceptable. Remove references to "treated zones".

Page 12

N. Retain the 20:1 dry foam expansion ratio for wall void treatments and the 5:1 wet foam ratio for treatment of filled porches or stoops. A very wet foam is require to insure an adequate filled porch treatment. Use of a "wetter" or less dilute foam indoors behind walls may not allow the foam to contact the vertical surfaces of the void.

O. Retain the present foam preparation table.

P. Remove the references to "treated zone".

Page 13:

Q. Acceptable.

Page 14

R. Retreatments: Proposed changes are unacceptable. As stated under the directions for foam application on page 11 of the label, "at least 75% of the gallons of the finished solution containing Phantom must be applied as a typical liquid treatment. The total amount of product applied with the combination of foam and liquid finished solution should be equivalent to that of the application of liquid finished solution only."

The same applies to retreatments.

S. Changes to above-ground termite infestation application instructions are acceptable except that the "localized control" claim must be retained. Note that the product shall be applied as a preventive treatment for drywood termites. It should be applied to provide localized control where infestations exist.

T. Remove reference to Subterfuge termite baits or any termite bait on this label. The proposal made would allow a complete bait treatment and only a spot treatment with Phantom as means to treat a structure. I believe that the Agency needs to consider ASPCRO comments before approving such a use pattern.

Page 15:

U. Provided EFED approves use of the product outside the structure, deleting the word "indoor" from the section heading is acceptable.

V. Remove all references to fire ant treatment and control. Fire ant data from an extensive field study have not been submitted. Therefore, there are not enough data to support the efficacy of this use pattern.

Page 16:

X. Retain the 0.5% dilution only. The data submitted in the past did not support a lower application rate. Ant specific studies need to be done in the lab and at some homes. How does this application differ from an exterior perimeter application for ants? Won't product runoff onto the adjacent soil?

Page 17

Y. The premise (no pun intended) for the 14:1 foam ratio is for outdoor wall void treatments for pests other than termites. I have concerns about using such a wet foam in a wall void and as a crack and crevice treatment. Why 14:1?

Z. Application around doors, windows etc. is acceptable provide the outdoor use is approved.

AA. Retain the 0.5% dilution for ant control. What data support the lower rate?

BB. I believe that the use pattern for outdoors needs to be stated in this section because ant trails is one of the sites.

Page 18

CC. Remove all references to fire ant mound treatments.

MRID 45758101 Comparative efficacy of residual treatments for the Control of the Southeastern drywood termite *Incisitermes snyderi* (Isoptera: Kalotermitidae) Using a Laboratory Choice Bioassay by Rudolf Scheffrahn, Buadanath Maharajh, and Jan Krecek.

This was a laboratory bioassay performed with chlorfenapyr and other termiticides (positive controls) against the southeastern drywood termite. Only pine wood was tested. The materials and methods employed in this study are similar to published and unpublished studies by R. Scheffrahn including the one from the 1996 Journal of Economic Entomology that is referenced in this MRID. Chlorfenapyr was tested as a 0.125% solution and 25% dust. 0.75ml of liquid was applied while dust were applied at a dry volume of 0.075cc (ml). According to Dr. Scheffrahn, the method insures that termites are exposed to chemicals by only two routes: 1) direct exposure as a result of one or more crawling termites to the treated cavity or 2) movement by air of volatile components to the untreated side. Live and dead nymphs were counted every 3 days or less. Mean mortality was assessed by ANOVA and means were separated by Student-Neuman Keuls test. $p = \text{less than } 0.05$. Data were processed by SAS.

The results showed that chlorfenapyr solution/dust was 100% effective by 49 days post-

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treatment. This result was made by direct observation and was not extrapolated. Mortality in the untreated control was acceptable at 13% while water only controls faired better with only 8% mortality.

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