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To: Dennis Edwards, Jr.
Product Manager 19
Special Review and Reregistration Division (H7508W)

From: Anthony Maciorowski, Chief
Ecological Effects Branch/EFED (H7507C)

Attached, please find the EEB review of...

Reg./File # : 3125-EUP-ENU
Chemical Name : Imidacloprid (NTN 33893)
Type Product : Termiticide
Product Name : PREMISE
Company Name : Miles Inc.
Purpose : EUP request for use as a termiticide.

Action Code : 700 Date Due : 1/31/93
Reviewer : Dana Lateulere

EEB Guideline/MRID Summary Table: The review in this package contains an evaluation of the following:

GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT
71-1(A)			72-2(A)			72-7(A)		
71-1(B)			72-2(B)			72-7(B)		
71-2(A)			72-3(A)			122-1(A)		
71-2(B)			72-3(B)			122-1(B)		
71-3			72-3(C)			122-2		
71-4(A)			72-3(D)			123-1(A)		
71-4(B)			72-3(E)			123-1(B)		
71-5(A)			72-3(F)			123-2		
71-5(B)			72-4(A)			124-1		
72-1(A)			72-4(B)			124-2		
72-1(B)			72-5			141-1		
72-1(C)			72-6			141-2		
72-1(D)						141-5		

Y=Acceptable (Study satisfied Guideline)/Concur
P=Partial (Study partially fulfilled Guideline but additional information is needed
S=Supplemental (Study provided useful information but Guideline was not satisfied)
N=Unacceptable (Study was rejected)/Nonconcur

ECOLOGICAL EFFECTS BRANCH REVIEW

Chemical: PREMISE Termiticide (Imidacloprid, NTN 33893)

100 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

Miles Inc. is requesting an Experimental Use Permit for the use of PREMISE Termiticide to evaluate its effectiveness as a termiticide. PREMISE if for "treatment of soil for control of subterranean termites". The EUP is requested for a period of three years, starting January 1993 or upon acceptance of this request. A total of 90 homes per year for three years will be treated with PREMISE Termiticide. The chemical composition of PREMISE Termiticide is identical to NTN 33893-2, EPA File Symbol 3125-URI. This formulation may also be referred to as PREMISE 2 TC, BAY NTN 33893 2, or the 240 FS formulation.

100.2 Formulation Information

Active Ingredient:

1-[(6-Chloro-3-pyridinyl)methyl]-4,5-dihydro-N-nitro-1H-imidazol-2-amine 21.4%

Inert Ingredients:..... 78.6%

100.3 Application Methods, Directions, Rates

The EUP program will utilize post-construction soil treatments by either rodding and/or trenching. The label also explains "If conventional application methods are not likely to provide an adequate distribution, foam generating equipment can be used to provide a continuous barrier". The precise amount of treated square footage cannot be determined until the actual site is chosen and measured.

100.4 Target Organism

Target organisms are subterranean termites.

100.5 Precautionary Labeling

"Hazards to Humans and Domestic Animals.

FOR EXPERIMENTAL USE ONLY.

Keep out of lakes, streams or ponds. Do not contaminate water when disposing equipment washwaters."

101 Hazard Assessment

101.1 Discussion

Under this EUP a total of 90 homes per year are proposed for treatment. The label lists all the various means of application that eventually will be obtainable, however,

the application states that only post construction rodding or trenching treatment will be utilized for the EUP program (Section C, Part C2). The precise amount of treated square footage cannot be determined until the actual site is chosen and measured. According to a survey (by Miles Inc.) an average of 200 gallons of solution is used in treating a dwelling. The concentrations listed under the EUP label are 0.01% to 0.1%, which will require 5.5g to 55.0 fluid ounces of product pr 100 gallons of water. With the treatment of 90 structures or dwellings per year, approximately 78 gallons per year of the 2 lb flowable formulation would be required.

A single application will be made to structures or dwellings identified as being infested with active populations of subterranean termites. Applications will be made using established procedure by a licensed Pest Control Operator.

The ninety sites are proposed as follows (each division has one responsible overseer):

North Carolina	4
South Carolina	4
Georgia	8
Alabama	2
Florida	10
Oklahoma	2
Arkansas	2
Louisiana	5
Mississippi	2
Tennessee	2
Texas	6
Ohio	5
Missouri	5
Illinois	5
Indiana	5
Connecticut	2
Virginia	2
Maryland	2
Pennsylvania	3
New Jersey	3
Arizona	5
California	5

101.2 Likelihood of Adverse Effects to Nontarget Organisms

Based on the use pattern of this EUP, soil treatment by rodding or trenching, the exposure to non-target organisms is expected to be minimal. However, EEB does have incident data on various termiticides for both avian and fish kills **and** NTN 33893 is classified as very highly toxic to aquatic invertebrates. If NTN 33893 were to be transferred, via groundwater, to aquatic habitats,

invertebrates would be at a high risk. Also, as yet, a NOEC for fish early life stage and reproduction toxicity has not been established; therefore, if exposed, fish may also be at risk.

101.3 Endangered Species Concerns
There are no endangered species concerns for this proposed EUP.

101.4 Adequacy of Toxicity Data
The data necessary for a terrestrial non-food EUP has been submitted and is adequate.

101.5 Adequacy of Labeling
The proposed use label should include the following statement: "This product is toxic to birds, fish and aquatic invertebrates", also the following wetlands statement, "Do not apply directly to water, areas where surface water is present or to intertidal areas below the mean high water mark".

102 Conclusions
The EUP application states that only soil treatment through rodding and/or trenching will be utilized on post-construction dwellings. EEB concludes that based on the method of application, exposure to non-target organisms is expected to be minimal. However, based on the toxicity of NTN 33893 and the incident data on file for termiticides, EEB feels it prudent to advise the registrant to inform OPP immediately [as required under FIFRA 6(a)(2)] should any mortalities associated with this EUP be observed.

Dana Lateulere, Biologist
Ecological Effects Branch
Environmental Fate and Effects Division

Signature: Dana Lateulere
Date: 1/13/93

Ann Stavola, Head Section V
Ecological Effects Branch
Environmental Fate and Effects Division

Signature: Ann Stavola
Date:

Anthony Maciorowski, Chief
Ecological Effects Branch
Environmental Fate and Effects Division

Signature: A. Maciorowski
Date: 1/15/93