

US EPA ARCHIVE DOCUMENT

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file

DP Barcode : D187376
PC Code No : 129099
EEB Out :

MAR 15 1993
MAR 15 1993

To: Dennis Edwards
Product Manager 19
Registration Division (H7505C)

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

Attached, please find the EEB review of...

Reg./File # : 003125-URI
Chemical Name : NTN 33893 2
Type Product : Insecticide
Product Name : NTN 33893 240 FS Formulation
Company Name : Miles Inc.
Purpose : Review Honey Bee Foliar Residue Study

Action Code : 116 Date Due : 2/27/93
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	426329-01	Y
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

1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

Subject: Foliar Residual Bee Toxicity Test, D187376

MAR 15 1993

To: Dennis Edwards, PM 19
Registration Division, H7505C

From: Anthony F. Maciorowski, Chief
Ecological Effects Branch
Environmental Fate and Effects Division, H7507C

EEB has completed a review of the study submitted by Miles, Inc.. The following is a summary of that review:

Hancock, G.A, et al. 1992. "NTN 33893: Toxicity to Honey Bees on Alfalfa Treated Foliage". Report No. 103938. Conducted by Irrigated Agriculture Research and Extension Center, Washington State University, Rt. 2, Box 2953-A, Prosser, WA 99350-9687 and Miles Residue Analysis Laboratory, Kansas City, MO 64120. Submitted by Miles Inc., Kansas City, MO 64120. EPA MRID No. 426329-01.

This study fulfills the requirements for a Foliar Residue Honey Bee Toxicity test, #141-2. The RT_{25} (the residual time required to reduce the activity of the chemical and bring bee mortality down to 25%) for the maximum application rate of 0.5 lb a.i./acre is approximately 8 hours. NTN 33893 is classified as highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

2



- B. Test System: - In order to control bias, bees were impartially distributed to test cages. About fifty bees were placed in each test cage. The bees in the cages were held in the laboratory at 12 hours light. The temperature was 24° to 25°C and relative humidity averaged 58%.

Weather conditions were carefully monitored using the PAWS automated weather stations located about 150 yards from the plots during the testing. Temperature, solar radiation, precipitation, relative humidity and wind were monitored.

- C. Dosage: The formulated product of NTN 33893 (240 FS, liquid) was applied at 0.045 lb a.i./acre, 0.167 lb a.i./acre and 0.5 lb a.i./acre (max application rate), using water as the carrier at 26 gallons per acre. There were three cages for each NTN treated plot and 3 cages for each untreated check plot for each time interval.
- D. Design: Alfalfa was aged and weathered in the field under ambient outdoor conditions. At 2 hours after application foliage was picked from 12 sites within each plot and placed in separate plastic bags for transporting to the laboratory. At 8 hours after application foliage was again collected as described above, and again at 24 hours. Foliage was chopped, and placed in the bee test cages. About fifty bees were placed in each test cage containing the chopped foliage. The number of dead and live bees were recorded 24 hours later and percent mortality determined.

Samples of the alfalfa foliage treated with NTN 33893 and the untreated checks were collected at 2, 8, and 24 hours after application, frozen and sent to Miles Incorporated, Stilwell, KS for analysis.

- E. Statistics: Newman-Keuls sequential studentized range was used for separation of means.

12. REPORTED RESULTS: The mean percent mortality for NTN 33893, 0.045 lb a.i./acre with 2 hour old residues was 5.6%, with 8 hour old residues 7.2% and with 24 hour old residues 11.9%

The mean percent mortality for NTN 33893, 0.167 lb a.i./acre with 2 hour old residues was 11.7%, with 8 hour old residues 16.1% and with 24 hour old residues 15.9%

The mean percent mortality for NTN 33893, 0.50 lb a.i./acre with 2 hour old residues was 11.8%, with 8 hour old residues 23.1% and with 24 hour old residues 20.8%

With the exception of the 2-hour residues from the 0.045 lb a.i./acre rate there was significantly more mortality with all the rates with 2, 8, and 24 hour old residues as compared to

study, NTN 33893 is classified as highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

D. Adequacy of the Study:

- (1) Classification: Core.
- (2) Rationale: n/a.
- (3) Repairability: n/a.

Initial Review

Page _____ is not included in this copy.

Pages 5 through 8 are not included.

The material not included contains the following type of information:

- Identity of product inert ingredients.
- Identity of product impurities.
- Description of the product manufacturing process.
- Description of quality control procedures.
- Identity of the source of product ingredients.
- Sales or other commercial/financial information.
- A draft product label.
- The product confidential statement of formula.
- Information about a pending registration action.
- FIFRA registration data.
- The document is a duplicate of page(s) _____.
- The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.
