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HEALTH EFFECTS DIVISION
SCIENTIFIC DATA REVIEWS
EPA SERIES 361



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MEMORANDUM

DATE: 03/12/01

SUBJECT: **Imidacloprid - Assessment for Proposed Wood Treatment**

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|-----------------|----------------------------|--------------|-------------|
| DP Barcode: | D251355 | PRAT Case: | 046690 |
| Submission No.: | S552208 | Caswell No.: | 12B |
| Chemical No.: | 129099 | Class: | Insecticide |
| Trade Name: | Preventol TM, 39967- RT | EPA Reg No.: | N/A |
| 40 CFR: | §180.472 | | |

TO: Meredith Laws/ PM Team 4
IRB/RD (7505C)

FROM: Yan W. Donovan, Chemist
RAB2/HED (7509C)

Yan Donovan

THRU: Richard A. Loranger, Branch Senior Scientist
RAB2/HED (7509C)

R. Loranger

INTRODUCTION

Bayer has submitted an application to register a new imidacloprid/termiteicide manufacturing use product (Preventol TM Insecticide, 39967-RL) and an end-use product (Preventol TM Preservative Insecticide, 39967-RT). The end-use product is identical to the manufacturing use product because Bayer intends to sell the product to the wood/building industry, and all treatment will be done by industry.

A complete use label was not available. Based on the letter from Bayer (from Stan Oslosky to Betty Haeberer), the proposed use directions are as follow: (RD should ensure that the proposed label is the same as this).

Preventol TM Preservative product is designed to be sold as a solid material. This solid material can be dissolved in an appropriate solvent and metered in liquid form immediately before the blender to ensure good mixing of the Preventol TM Preservative with the wood chips prior to compressing them. This would entail the opening of the product container and pouring it into a blending tank. As an alternate method of application Preventol TM can be added directly to the blender with a similar type of exposure potential. Thirdly Preventol TM can be added to any adhesive or wax applied to the wood chips in the blender. All of these exposures would be characteristic of pouring and mixing. The recommended addition rate of 0.1 lb/ft³ of wood would yield about 2 lbs of ai in an 8x10 room comprised completely of treated composite.

HED was asked to assess the occupational exposure and residential exposure from the above proposed uses.

OCCUPATIONAL AND RESIDENTIAL EXPOSURE

For imidacloprid, the HIARC Committee (9/11/97; reaffirmed 10/16/97) concluded that occupational and residential risk assessments for dermal and inhalation exposure were not required as **no short-, intermediate-, or long-term dermal or inhalation toxicological endpoints were identified**. A short-term aggregate risk assessment (oral exposure) is required for hand to mouth residential exposure, and the target MOE is ≥ 300 . HED utilized the acute toxicological endpoint for this risk assessment. (HED memo of 01/22/01, Yan Donovan, DP Barcode D267168).

Occupational Exposure

No dermal or inhalation endpoint was selected, therefore, occupational risk assessment is not needed. In addition, the concept of a restricted entry interval (REI) does not apply to a non-agriculture use like this wood treatment.

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Non-occupational/residential Exposure

For non-occupational/residential post-application exposure, a short-term aggregate risk assessment (oral exposure) is required for hand-to-mouth exposure for children, and the target MOE is ≥ 300 . HED utilized the acute toxicological endpoint for this risk assessment. Intermediate-term hand-to-mouth exposure is not anticipated from the registered residential uses.

Children might be exposed to imidacloprid treated wood when it is used in play ground or home furniture construction. However, worse case scenarios of children eating imidacloprid treated turf/grass and eating granules have been previously assessed (HED memo of 01/22/01, Y. Donovan, DP Barcode D268562). It was concluded that the residential exposure to children (1 - 6 years) from the home garden and turf uses of imidacloprid results in an MOE of 7100, and for children's incidental ingestion of granules the MOE is estimated at 350. HED concludes that exposure from treated wood is negligible compared to the turf/lawn use. A separate risk assessment is not needed.

cc: Y.W. Donovan, RAB2 reading file.