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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

OPPTS/OPP/RD/TRB/PRODUCT CHEMISTRY TEAM

WASHINGTON, D.C. 20460

DATE OUT: October 5, 2005

SUBJECT: Product Chemistry Review of Hartz Reference 121
Barcode #:322068 Decision #:357507 Reg No:2596-RLU
PC Code(s):044312, 129032, 109701 Food Use:NO

FROM: Linda L. Kutney, Chemist
Product Chemistry Team
Technical Review Branch/RD (7505C)

Linda L Kutney 10/5/05

10/5/05

TO: Daniel Kenny, Rita Kumar RM-01
Insecticide Rodenticide Branch/ RD (7505C)

INTRODUCTION:

The Hartz Mountain Corporation has submitted product chemistry data to support registration of their new product, Hartz Reference 121, to be dermally applied insecticide for dogs and puppies. Data were faxed and hand-delivered to the reviewer, but not yet assigned an MRID.

Hartz intends that the most recently submitted alternate CSF, dated 9/29/05, supersede all previously submitted alternate CSFs.

This review is a follow-up to the TRB review of 9/29/05.

SUMMARY OF FINDINGS:

1. The product consists of equal amounts of liquid in Chamber A and Chamber B.

2. The nominal concentration of ais given on the proposed label are:

   45.00 % Permethrin (Chamber A)
   AND
   14.85 % Dinotefuran (Chamber B)
   1.50 % Sumilarv (Chamber B)

3. The nominal concentration for all of the proposed CSFs agrees with the label claim (PRN 91-2 is satisfied).

4. All conditions required for alternate formulations listed in 40CFR 152.43 are satisfied.

TRB CONCLUSIONS:

1. The physical or chemical hazards statement on the label must state, 'Combustible. Do not use or store near heat or open flame,' in accordance with 40 CFR 156.78.

2. We note that the nominal concentration of sumilarv is 1.50%, not 1.48%, as listed on the label, but this slight difference is acceptable.

3. The alternate proposed CSF, dated 9/29/05, is now acceptable.

4. Subgroup A product chemistry data requirements for the following Guidelines will be satisfactory, providing the Registrant sends the Agency acceptably formatted (PRN-86-5 acceptable) copies of the following:

   Discussion of Impurities - (GDLN 830.1670)

   Submission of Analytical Enforcement Methods for all 3 ais (GDLN 830.1800)

5. The RM is requested to send a copy of the formally submitted GDLN 830.1670 and 830.1800 to this reviewer to confirm their acceptability and to include assigned MRID numbers into the Agency database for future use, prior to Registration.

6. Subgroup B product chemistry data requirements are still pending for:

Storage Stability (GDLN 830.6317) - In Progress

Corrosion Characteristics (GDLN 830.6320) - In Progress

PRODUCT CHEMISTRY DATA (SERIES 830 Subgroup A & Subgroup B)

| Subgroup A, Guideline 830.--: | Data OK? | MRID |
|---|---|---|
| 1550.Chemical Identity(CSF) | Yes | CSF |
| 1600. Beginning Materials | Yes | 46552701 |
| 1650. Formulation Process | Yes | 46552701 |
| 1670. Discussion of Impurities | Yes, pending adequate formal submission to the Agency | To be assigned |
| 1750. Certified Limits(CSF) | Yes | CSF |
| 1800 Enforcement Analytical Method | Yes, pending adequate formal submission to the Agency<br>HPLC TM# 440-0<br>Luna C18 (2), 5 micron, 4.6 mm x 150 mm Column or equivalent<br>UV detector at 254 nm<br>2.5 ml/min flow rate<br>10 microliter injection volume<br>Di-N-Amyl Phthalate (DAP) internal standard was used | To be assigned |

| Subgroup B, Guideline 830.-: | Data OK? | Description | MRID |
|---|---|---|---|
| 6302 Color | Yes | Chamber A-Permethrin-colorless to light yellow | 46552701 |
| 6303 Physical State | Yes | Clear Liquids | 46552701 |
| 6304 Odor | Yes | Ethyl Lactate | 46552701 |

| | | | |
|---|---|---|---|
| | | Smell | |
| 6314 Oxidation/Reduction | Yes | Both components did not react with water or monoammonium phosphate but did slightly discolor in zinc.<br><br>Chamber B-Dinotefuran-pyriproxifen compartment of the formulatation showed immediate reaction with potassium permanganate-with color change and effervescent foaming. | 46552701 |
| 6315 Flammability/Flame Extension | Yes | Chamber A-Permethrin 139 F<br><br>Chamber B-Dinotefuran-pyriproxifen 143 F Dinotefuran:pyripr oxifen 2.5:1 152F | 46552701 |
| 6316 Explodability | Yes | Not reported to contain explosive components. | 46552701 |
| 6317 Storage Stability | NO | Study in progress. | 46552701 |
| 6319 Miscibility | Yes | NA. Not mixed with petroleum solvents. | 46552701 |
| 6320 Corrosion Characteristics | NO | Study in progress. | 46552701 |
| 6321 Dielectric Breakdown Voltage | Yes | Not used around electrical equipment. | 46552701 |

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|---|---|---|---|
| 7000 pH | Yes | Chamber A: The Permethrin component does not contain water, so the pH does not exist.<br>Chamber B: Dinotefuran:pyripr oxifen is about 5.8 at 25C. | 46552701 |
| 7100 Viscosity | Yes | Chamber A: Permethrin 16 cP Brookfield spindle 2 at 10 rpm<br>Chamber B: Dinotefuran/pyripr oxifen 40 cP Brookfield spindle 2 at 10 rpm | 46552701 |
| 7300. Density/Bulk Density | Yes | Chamber A: Permethrin 9.23 lb/gal<br>Chamber B: Dinotefuran:pyripr oxifen 8.99 lb/gal | 46552701 |

Explanations: NA = Not Applicable