



Evaluation Report for Category A, Subcategory 2.0 Application

Application Number: 2011-2689
Application: New Use (Structural)
Product: Temprid SC Insecticide
Registration Number: 32524
Active ingredients (a.i.): Imidacloprid and beta-cyfluthrin
PMRA Document Number: 2705617

Purpose of Application

The purpose of this application was to register a new commercial end-use product, Temprid SC Insecticide, containing imidacloprid and the new active ingredient beta-cyfluthrin. Temprid SC Insecticide may be applied indoors and outdoors, on the exterior of structures and inside modes of transportation as well as to human proximal sites such as mattresses.

The assessments for the new active ingredient beta-cyfluthrin are outlined in PRD2016-21, *Beta-Cyfluthrin*. The assessments for imidacloprid for the new use in human proximal sites are outlined in PRD2016-22, *Imidacloprid*. The assessment of Temprid SC Insecticide for structural uses, for which imidacloprid is already registered, is included herein.

Chemistry Assessment

The chemistry assessment of the end-use product, Temprid SC Insecticide, is included in PRD2016-22, *Imidacloprid*.

Health Assessments

Temprid SC Insecticide is slightly acutely toxic via the oral route of exposure. It is of low acute toxicity in rats via the dermal and inhalation routes. It is minimally irritating to the eyes and slightly irritating to the skin of rabbits. It is not a dermal sensitizer in guinea pigs. The detailed toxicological assessment of the end-use product, Temprid SC Insecticide, is included in PRD2016-22, *Imidacloprid*.

Human health risk assessments for the active ingredient imidacloprid were completed for the end-use product Temprid SC Insecticide. The end-use product is for structural use indoors and outdoors on the surfaces of structures to control flying and crawling insects. Risk assessments for commercial applicators and domestic postapplication re-entry scenarios were conducted. Inhalation and dermal exposures to commercial pest control applicators are not expected to be of concern providing label statements are followed. Dermal and inhalation exposures to adults, youth (11 < 16 years) and children (1 < 2 years) are not expected to be of concern for imidacloprid. Incidental oral exposures to imidacloprid for children (1 < 2

years) are not of concern. Aggregate risks (residential + food + water exposure) for all age groups were not of concern for imidacloprid.

Environmental Assessment

An environmental assessment was not required for this application.

Value Assessment

Imidacloprid is combined with a new insecticide, beta-cyfluthrin, in the commercial class product, Temprid SC Insecticide. This product is a spray formulation that kills listed insects, sowbugs and spider pests found indoors and outdoors on the exterior of structures and inside modes of transportation. Based on efficacy data from 20 studies, a claim of “kills on contact” is supported for ants, bed bugs (eggs, nymphs and adults), blue bottle flies, cockroaches, crickets, flesh flies, house flies, spiders and stable flies. Some species of spider (i.e., cellar spiders) are less susceptible. A claim of kills cluster flies on contact is supported by data extrapolation from other fly species. The remaining pests were supported by extrapolation from the registered use pattern of cyfluthrin. The submitted value information demonstrated that combining these two insecticides improves the efficacy against pyrethroid-resistant bed bugs and cockroaches. It also kills bed bug eggs.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information submitted, and has found the information sufficient to support the registration of the end-use product Temprid SC Insecticide.

References

A. List of Studies/Information Submitted by Registrant

| PMRA Document Number | Reference |
|----------------------|---|
| 2073783 | 2010, Temprid SC Insecticide (21% Imidacloprid, 10.5% Beta-cyfluthrin) for Control Public Health Pests (such as Bed Bugs) and Certain General Indoor Household Pests and Outdoor Pests, DACO: 10.1 |
| 2073785 | 2010, Temprid SC Insecticide (21% Imidacloprid, 10.5% Beta-cyfluthrin) for Control Public Health Pests (such as Bed Bugs) and Certain General Indoor Household Pests and Outdoor Pests, DACO: 10.1,10.2.1,10.2.2,10.2.3.1,10.2.3.3,10.3.1,10.3.2 |
| 2073787 | Temprid spreadsheet 2010 Data Summary Excel tables Feb19, DACO: 10.2.3.3 |
| 2139930 | 2011, Temprid SC Insecticide (21% Imidacloprid, 10.5% Betacyfluthrin) for Control of Public Health Pests (such as Bed Bugs) and Certain General Indoor Household Pests and Outdoor Pests, DACO: 10.4 |
| 2139931 | 2011, Temprid SC Insecticide (21% Imidacloprid, 10.5% Betacyfluthrin) for Control of Public Health Pests (such as Bed Bugs) and Certain General Indoor Household Pests and Outdoor Pests, DACO: 10.4 CBI |
| 2240179 | DACO Part 10 Deficiency response, DACO: 10.2.3.2,10.2.3.3,10.3.2 |
| 2310242 | Temprid SC Insecticide (Sub. No. 2011-2689): Response to Request for Clarification. DACO 0.8 |
| 2257245 | 2012, Temprid Readyspray is a Ready To Use Dilution in a Pre-Pressurized Applicator that Contains 0.05% Imidacloprid and 0.025% Beta-Cyfluthrin for Control Public Health Pests (such as Bed Bugs) and Certain General Indoor Household Pests and Outdoor Pests, DACO: 10.1,10.2.1,10.2.2,10.2.3.1,10.2.3.3,10.3.1,10.4 |
| 2257246 | Anonymous, Bag-on-Valve Coster BOV2 series offers faster filling and better drop resistance, DACO: 10.1 |
| 2257264 | DACO 5.2 Use Description/Scenario for Temprid ReadySpray Insectide, DACO: 5.2 |
| 2292820 | 2001, Analysis of the National Pest Management Association Pest Control Operators (PCO) Product Use and Usage Information Survey, DACO: 5.2 |
| 1738839 | 2009, Gaucho FS 350 (Imidacloprid): In Vivo Dermal Absorption Study in the Male Rat, DACO: 5.8 |
| 2445310 | Williams R.L., Bernard C.E., Krieger R.I. 2003. Human Exposure to Indoor Residential Cyfluthrin Residues During a Structured Activity Program. Journal of Exposure Analysis and Environmental Epidemiology, 13, p.112 – 119. |
| 2073801 | 2007, Temprid SC (21% imidacloprid + 10.5% Beta-Cyfluthrin SC) Acute Oral Toxicity Up and Down Procedure in Rats, DACO: 4.6.1 |
| 2073804 | 2007, Temprid SC (21% imidacloprid + 10.5% Beta-Cyfluthrin SC) Acute Dermal Toxicity Study in Rats Limit Test, DACO: 4.6.2 |
| 2073807 | 2007, Temprid SC (21% imidacloprid + 10.5% Beta-Cyfluthrin SC) Acute Inhalation Toxicity Study in Rats - Limit Test, DACO: 4.6.3 |

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| 2073808 | 2007, Temprid SC (21% imidacloprid + 10.5% Beta-Cyfluthrin SC) Primary Eye Irritation Study in Rabbits, DACO: 4.6.4 |
| 2073809 | 2007, Temprid SC (21% imidacloprid + 10.5% Beta-Cyfluthrin SC) Primary Skin Irritation Study in Rabbits, DACO: 4.6.5 |
| 2073810 | 2007, Temprid SC (21% imidacloprid + 10.5% Beta-Cyfluthrin SC) Dermal Sensitization Study in Guinea Pigs (Buehler Method), DACO: 4.6.6 |

B. Additional Information Considered

i) Published Information

| PMRA Document Number | Reference |
|-----------------------------|--|
| 1448938 | 2006. USEPA. Reregistration Eligibility Decision for Piperonyl Butoxide (PBO). June 2006 |
| 2409268 | 2012. USEPA. Standard Operating Procedures for Residential Pesticide Exposure Assessment: Section 7 Indoor Environments. Health Effects Division, Office of Pesticide Programs, Office of Chemical Safety and Pollution Prevention, U.S. Environmental Protection Agency, Washington, DC |

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