

Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 2.5, 3.4, 3.14 Application

Application Number: 2011-0974
Application: B.2.1 (Product chemistry – guarantee)
B.2.3 (Product chemistry – identity of formulants)
B.2.4 (Product chemistry – proportion of formulants)
B.2.5 (Product chemistry – formulation type)
B.3.4 (Product labels – application method)
B.3.14 (Product labels – classifications)
Product: Mosquito-Less Commercial
Registration Number: 30680
Active ingredients (a.i.): Garlic oil
PMRA Document Number : 2220714

Purpose of Application

The purpose of this application was to register a commercial-class product, Mosquito-Less Commercial (1.25% garlic oil), for outdoor application at cottages, homes, gardens, pools, outdoor events, parks, recreation areas, RV parks, and marinas to repel mosquitos.

Chemistry Assessment

Mosquito-Less Concentrate is an emulsifiable concentrate containing the active ingredient garlic oil at a nominal concentration of 1.25%. This product has a density of 0995 – 1.046 g/mL and pH of 4.5 - 5. The chemistry requirements for Mosquito-Less Concentrate have been completed.

Health Assessments

Mosquito-Less Commercial is expected to have low acute toxicity by both the oral and dermal route, may be a skin and eye irritant, and possible dermal sensitizer.

The current label statements for Mosquito-Less Commercial are considered adequate to address any potential risk due to exposure of the mixer, loader, applicator, and/or bystander to the end-use product. Occupational exposure when applying Mosquito-Less Commercial is not expected to result in unacceptable risk when the product is used according to label directions.

Dermal and ocular exposures are possible when applying the product, particularly to the commercial applicator, therefore appropriate personal protective equipment is required. The PMRA required that “Applicators must wear a long-sleeved shirt and pants, water-proof gloves, shoes plus socks and protective eyewear.”

Environmental Assessment

An environmental assessment was not required for this application.

Value Assessment

One study consisting of three trials conducted in distinct locations was reviewed in support of the area repellent claims against mosquitoes for the domestic-class products, Mosquito-Less (1.25% garlic oil) and Mosquito-Less Ready-to-Use (0.1% garlic oil), and the commercial-class product, Mosquito-Less Commercial (1.25% garlic oil). This study was conducted in Eastern Ontario in 2012, and tested Mosquito-Less in three environments (rural, semi-urban, and urban). This study compared mosquito trapping counts using CDC light traps baited with CO₂ in untreated and treated sites at each location. A statistically significant repellent effect was observed for three days after application, with repellency ranging from 85.3 to 92.4% on the day of application, 77.6 to 81.5% on the day following application, and 50.0 to 63.3% on the third day. By the fourth day, a statistically significant repellent effect was no longer observed in two of the three treated sites, with repellency ranging from 3.7 to 26.9% for all three sites.

Conclusion

The PMRA has completed an assessment of the available information and is able to support the full registration of Mosquito-Less Commercial.

References

- 2021640 2011, Chemistry Requirements for Registration of End-Use Product, DACO: 3.1.1,3.1.2,3.1.3,3.1.4,3.2,3.2.1,3.2.2,3.2.3,3.3.1,3.4.1,3.4.2,3.5,3.5.1,3.5.10,3.5.11,3.5.12,3.5.13,3.5.14,3.5.2,3.5.3,3.5.4,3.5.5,3.5.6,3.5.7,3.5.8,3.5.9 CBI
- 2205763 2012, Report on the Efficacy of Mosquito-Less (Garlic Oil 1.25%) in reducing the numbers of nuisance mosquitoes in 3 different environments, Semi-Urban, Rural and Urban., DACO: 10.2.3.3(C)
- 2205764 2012, Trial 1-Otty Lake Development-03july2012, DACO: 10.2.3.3(C)
- 2205765 2012, Trial 2 - Rural Setting- Blakeney-03july2012, DACO: 10.2.3.3(C)
- 2205766 2012, Trial 3 - Urban Setting - Almonte-03july2012, DACO: 10.2.3.3(C)

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