

PRODUCT PERFORMANCE / EFFICACY REVIEW

Mark Suarez, Entomologist - IB

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2 DECEMBER 2004

DATE: 30 November 2004

EPA REG. NUMBER: 58007-7

PRODUCT NAME: 3M Ultrathon Insect Repellent 8

REGISTRANT: 3M

PM: Richard J. Gebken, Acting PM 10
REVIEWER: Joseph Tavano

DECISION #.: 344065
DP BARCODE: 304170

ACTION: R34

ACTIVE INGREDIENT(S): 080301, Diethyl toluamide.....25%

TYPE: Topical Repellent

OPPTS GUIDELINE(S): 810.1000
810.3000
810.3300

MRID: 46284101
46284102

GLP ?: No.

SITES: Human Skin, Human Face Are, Human Neck Area, Human Clothes, Human Clothes (shoes)

PESTS: Mosquitoes

APPLICATION RATE: approximately 1 mg/cm²

STUDY APPLICATION RATE: 1 mg/cm²
2 mg/cm²

STUDY SUMMARY:

A laboratory assay was used to evaluate the length of protection provided from application to first bite. The forearm of six test subjects was exposed to 500 caged mosquitoes for 5 minutes every hour until first confirmed bite or to hour 16, whichever occurred first. This study was conducted indoors with caged mosquitoes, *Aedes aegypti*. Avidity (bite pressure) was monitored through the trials and required to be >25 mosquitoes landing within 20 seconds. Avidity was measured for one of the three cages prior to each exposure time.

The study results are listed below in Table 1.

Application Rate	Mean Protection Time	Std Dev	95% Confidence Interval
1 mg/cm ²	12.00	3.33	8.5-15.5
2 mg/cm ²	14.67	2.80	11.7-17.62

Table 1. Time to First Bite. The time from initial application to first bite means, standard deviations, and 95% confidence intervals are reported for the formulation at both the 1 and 2 mg/cm² application rates.

ENTOMOLOGIST'S COMMENTS AND RECOMMENDATIONS:

The registrant wants to increase label claims and change the name of the product to market it as protecting from mosquitoes for up to 12 hours. The product was tested for twelve (12) hour claims against mosquitoes only. The product provided adequate protection against the mosquitoes used in the assay, *Aedes aegyptii*. However, the product would be evaluated more appropriately through a field trial including at least two genera of mosquito. *Culex* and *Aedes* are recommended.

- Twelve hour claims are applicable only to mosquitoes. No such claim may be made against other taxa.
- The product name change and label amendment are acceptable under the condition that corroborating field data are submitted or cited for at least two genera of mosquito; *Culex* and *Aedes* are preferred. Submit field data within 12 months or submit cited data with an updated data matrix [EPA Form 8570-35] within 6 months.

Enclosure
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