

EFFICACY STUDY REVIEW

by Kevin J. Sweeney, Entomologist - IB

Kevin J. Sweeney
5/25/04

To: Joe Tavano

Date: May 25, 2004

EPA Reg. or File No.: 4822- 380

Product Name: Unscented OFF! Insect Repellent.

Registrant: S.C. Johnson & Son, Inc.

PM: Richard Gebken, Acting PM 10

Dec No. 328962

DP: 295676

Chemical: DEET

OPPTS Guideline 810.3300

Formulation: RTU 15% DEET spray-on

Request: review efficacy data to support 6 hour repellency claim and WNV/disease related claims.

Studies Submitted: **MRID: 45922901 Determining Repellency of OFF! 4822-380 Against Mosquitoes (Culicidae) in the Field by S.C. Johnson**

This study was conducted in the field to determine the effectiveness of the subject product against mosquitoes. The study was conducted in Australia and the study location and test species were previously approved by Kevin Sweeney prior to initiation. The study was conducted in Australia due to concerns about exposure to West Nile virus in the U.S. Multiple field habitats were tested with a variety of test species present including those from the genera *Culex* and *Ochlerotatus*. Mosquito exposure began at 4.5 hours post-treatment and data were recorded at 5.5, 6.5 and 7.5 hours. There were 30 replicates for the First Bite Test. Biting pressure in the control replicates was acceptable.

The study was conducted in accordance with GLP requirements and the data reported as Time to First Bite and 95% or greater repellency. Currently, the EPA is using the Time to First

Bite or Time to First Confirmed Bite as the regulatory standard. However, future guidance could include a 95% repellency test and this study was designed to address both tests.

Entomologist Comments and Recommendations:

1. The study is acceptable in accordance with OPPTS Guideline 810.3300.
2. The study results support a claim of six-hours repellency against mosquitoes.
3. The additional new claims are acceptable except for "from/against mosquitoes... that carry diseases." Use the name of a specific disease. The WNV claims are acceptable.

Note: Some of the precautionary statements in the directions for use are different or have been omitted when compared to the accepted label. Some of the omissions are generally required on insect repellent labels.