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FILE OR REG. NO. 4822-GAI

PETITION OR EXP. PERMIT NO. _____

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TYPE PRODUCT(S): (I, D, H, F, N, R, S) Repellent

DATA ACCESSION NO(S). 418443-02; D163895; S395043; Case#048218; Action Code:160

PRODUCT MGR. NO. 17-Hutton/Tavano

PRODUCT NAME(S) OFF! Insect Repellent Formula 1990 #3

COMPANY NAME S. C. Johnson & Son, Incorporated

SUBMISSION PURPOSE Provide performance data to support claims for 2-
hour protection against mosquitoes, black flies
and sand flies with new low-Deet formulation.

CHEMICAL & FORMULATION N,N-Diethyl-meta-toluanide 6.65%

Other isomers 0.35%

(non-aqueous, ready-to-use liquid, in 3- and 6-fluid ounce pump-spray bottles)
[Since identical mg/cm² of deet are applied as with the aerosol, data & conclusions are the same.]
CONCLUSIONS & RECOMMENDATIONS The data presented in EPA Accession (MRID)
Number 418443-02, having been obtained from laboratory and field testing
conducted according to protocols which meet essential requirements of § 95-9
on pp. 262-4 and especially § 95-9(a)(1)-(3) on p. 263 and the standards for
§ 95-9(b)(1)(iv) and (v) on p. 264 of the Product Performance Guidelines are ade-
quate to support the claims for repellency against mosquitoes and biting flies
for up to 2 hours when the subject product is applied to human skin according to
label directions. Test No. 1 demonstrates laboratory efficacy of the subject
formulation applied as an aerosol against yellow fever mosquito and stable fly, as
well as equivalency to a 7.5% lotion applied at the same amount of deet per unit
area. Tests 2 & 3 demonstrate effectiveness of the subject aerosol against these
2 species equivalent to other deet aerosols of lower and higher concentration in
laboratory tests. Tests 4 & 6 demonstrate field efficacy of the subject aerosol
against Aedes vexans in Wisconsin and A. taeniorhynchus in Florida compared to a
7.5% lotion (which also contains R-11 at 1%) applied at the same unit-area rate;
tests 7 & 8 demonstrate field repellency of the subject aerosol against Aedes in
the same 2 locations compared to a 5% aerosol; test 5 demonstrates field repel-
lency of the subject aerosol against Aedes in Wisconsin compared to a 3% aerosol
and test 9 compares field repellency of the subject aerosol and a 15% deet liquid
against Aedes in Maine. Test 10 demonstrates field repellency of the subject
aerosol against black flies in Maine compared to a 7.5% deet-only lotion applied
at the same unit-area rate. Test 11 demonstrates field repellency of the subject
aerosol against sand flies in Georgia compared to the same lotion at the same rate.
Incidentally, the label declaration for other isomers should be 0.35% (5% of 7.00%).

RL Verrill McFarland, IRB