

EFFICACY REVIEW

DATE: IN 12-12-94 OUT 4- 6-95

FILE OR REG. NO. 4822-UGG

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED October 17, 1994

DATE OF SUBMISSION October 10, 1994

DATE SUBMISSION ACCEPTED _____

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

DATA ACCESSION NO(S) . 434124-08;D210137;S475984;Case#044988;AC:165

PRODUCT MGR. NO. 10-Johnson/Waldo

PRODUCT NAME(S) RAID #319 Allergen Control Carpet & Room Deodorizer

COMPANY NAME S. C. Johnson & Son, Incorporated

SUBMISSION PURPOSE Provide performance data in support of claims
for miticidal action vs. house dust mites & re-
duction of allergens in carpet up to 6 weeks.

CHEMICAL & FORMULATION Benzyl benzoate = 4.6%
(1.5 g/ml bulk density crystals, ready-to-use)

CONCLUSIONS & RECOMMENDATIONS The data presented in EPA accession
(MRID) Number 434124-08, having been obtained from laboratory test-
ing conducted according to a company-designed protocol which meets
the requirements of § 95-11(b) (1) and (3)-(7) on p. 268 and the
standard of § 95-11(c) (2) on p. 270 of the Product Performance
Guidelines by substitution of a crystalline powder for a spray, and
which meets the GLP requirements of 40 CFR 160, are adequate to
demonstrate once again the acaricidal properties of benzyl benzoate
(which are well known and previously established) and support the
following label claims for the subject product when used according
to label directions: "(Miticidal Carpet Deodorizer)" and/or
"(Miticidal Rug & Room Deodorizer)" on the front panel (p. 1 of the
draft label); the following acaricidal claims on p. 2: "...by help-
ing to eliminate (kill) the dust mites..." in line 3; "...helps e-
liminate dust mites..." in line 6; "Kills dust mites." in lines 15,
16 and 19; "...eliminate(s) dust mites..." in lines 18 and 25 and
"...eliminate...dust mites..." in line 22; "Controls dust mites..."
in lines 20 and 21 and "...control dust mites." in line 26. Also,
the duration claim in line 21 of "...up to 4 weeks (30 days) (1
month)" and the alternative claim "... (6 weeks)." (to be continued)

Furthermore, the data in MRID No. 434124-08 relative to establishment and use of an analytical method for determining guanine content as a measure of the levels of dust mite allergens present in or on treated surfaces at certain times following treatment are adequate to support the following label claims with regard to the reduction of allergens as a result of using the subject product: "ALLERGEN CONTROL..." in the product name on p. 1; the following claims on p. 2: "...eliminating allergens..." on line 9; "...it helps eliminate [dust mites and their] allergens..." on lines 11 and 12; "Reduces dust mite allergen levels in the home." on line 23; and "Reduces dust mite allergens up to 80%." on line 27. Most of the other statements on p. 2 are based on factual information and do not require comment here. The information presented in the administrative volume entitled "Management of House Dust Mite Allergy" gives confirming proof that the subject product, when applied according to label rates and directions is as effective in reducing populations of Dermatophagoides pteronyssinus as other products containing benzyl benzoate and in some cases even more effective. Of particular value is the comparison to Acarosan, which was the first product to use this active ingredient for house dust mites and was submitted back in 1988. In one of 2 summaries the subject product was clearly better than Acarosan when both were applied at corresponding label rates, and in the other summary the two products were essentially equal in effectiveness. Based on the bulk density of 1.5 grams per milliliter and a volume of 236.5 ml per cup, the label rate of 1/4 cup per square yard is approximately $59.125 \text{ ml} \times 1.5 \text{ gm/ml} = 88.7 \text{ grams product per square yard}$ or 26.7% more than the 70 grams per square yard used in testing. This gives additional assurance that the label rate will provide reduction of dust mite populations of both D. pteronyssinus and D. farinae of from 81% to 94% and 91% to 98%, respectively, for up to 6 weeks and an 80% reduction of dust mite allergens, regardless of whether or not the product was broomed in following application to treated carpeting. Incidentally, the "One 16 oz. container will cover about 60 sq. ft." statement on p. 3 is equivalent to 1 pound for about 6.67 square yards, or $453.59243 \text{ grams}/6.67 = 68 \text{ grams per square yard}$, which is very close to the rate used in testing but may be confusing to the purchaser when trying to determine the rate of application. We recommend these statements as to content and/or application rate be harmonized on final printed labeling. Clearly a pound is a more precise estimation of rate than a 1/4 cup unless the weight of the container is somehow equated to its volume on the label itself, which is an option the registrant may wish to choose.

RL Vern L. McFarland, IRB