MRID # 107492

DATA EVALUATION RECORD

1. CHEMICAL: RH-6201 Sodium 5-[2-chloro-4-(trifluoromethyl)-phenoxy]-2-nitrobenzoate

2. FORMULATION: 39.8% Technical

3. CITATION: Najarian, G. and V.J. Piccirillo. Unpublished. One-generation reproduction study in mallard ducks, RH-6201, Final Report. Hazelton Lab. for Rohm and Haas Co. 1978 (097718).

4. REVIEWED BY: Richard R. Stevens
Biologist, EEB
HED
April 3, 1979

5. TEST TYPE: Avian Reproduction
A. EEB WI
B. Mallard duck (Anas platyrhynchos)

6. CONCLUSIONS:

Based on the results of this study, environmental levels of up to 100 ppm of RH-6201 did not present a hazard to the reproductive capacity of mallards. This study is judged scientifically sound and satisfies the guideline requirements for an avian reproduction study.

7. MATERIALS AND METHODS:

RH-6201 LC (39.8 active ingredient in water, lot# PL 76/8005) was fed to male and female Mallard ducks at dietary concentrations of 20 and 100 ppm active ingredient during a one-generation reproduction study. Ninety mature Mallard ducks (Anas platyrhynchos), phenotypically indistinguishable from wild birds, were distributed among one control and two treatment groups, each containing 5 male and 25 females. The birds were approaching their second laying season, which was photoinduced; the first laying season occurred in the preceding spring.

Parental birds and hatchings were observed daily for mortality and toxic or pharmacologic effects. In addition, hatchlings were observed for obvious weakness or malformations. Total body weights of the 3 parental birds in each pen were recorded at weeks 0, 4, 8 and terminally and total per pen food consumption was recorded weekly. All birds were sacrificed and discarded without gross necropsy. Calculations were made for the number of: eggs laid, eggs cracked, eggs set, viable embryos, live 21-day embryos, hatchlings, 14-day survivors and the egg shell thickness. Experimental data was evaluated statistically at the 5% probability level.

8. REPORTED RESULTS:

No toxicological or pharmacological effects or mortalities were observed in parental birds. Statistical analyses of both bodyweight (total pen weight) and food consumption data (total consumed per pen) revealed no significant difference among groups. No real difference was observed in the number of eggs laid in both treated groups compared to control. The mean eggshell thickness of both the 20 and 100 ppm groups was comparable to the control groups at weeks 2, 4, 6 and at week 8 for the 100 ppm group; a statistically significantly ($p < .05$) lower eggshell thickness was seen for the 20 ppm group at week 8. However, this eggshell "thinning" observed at week 8 for the 20 ppm group is a reflection of the high mean eggshell thickness for controls at week 8 and is not due to treatment. Indices for embryo viability (11 and 21 day hatchling survival) were comparable in the control and treatment groups. Differences seen in the

evaluation of the indices revealed no untoward treatment-related effects and are within normal biological variation.

Based on the results of this study, it is judged that dietary concentrations of up to 100 ppm of the active ingredient in RH-6201 technical do not present a reproductive hazard to Mallard ducks.

9. DISCUSSION:

This study is determined to be scientifically sound and satisfies the guideline requirements for an avian reproduction study. However, under section 163.71-4 (b)(4) of the guidelines, mallards approaching their first breeding season rather than the second breeding season should have been used. Also, the date test was conducted is not given.

Validation category: Core

Category repairability: none required.