EFED Document

2002030

DATA EVALUATION REPORT

ECOLOGICAL EFFECTS BRANCH

1. Chemical: Tilt

   Shaughnessy No: 122101

2. Formulation: 90.7%

3. Study ID: Beavers, Joann B. 1981. Subacute Feeding-Reproduction Screening Bioassay Bobwhite Quail, CGA-64250. Prepared by Wildlife International Ltd. for Ciba-Geigy Corp. Data Acc. #: 072210 Ref #31

4. Study Type: 8-week dietary exposure

5. Review By: Daniel Rieder
   Wildlife Biologist
   EEB/HED

   Date: 10/17/84
   Review Time: 3 Hrs.

6. Reported Conclusions: There was no mortality at any levels (>4640). Food consumption and weight gain were not adversely affected at any levels. Six birds were tested at each dose level for 8 weeks. Age at beginning of test was 25 weeks.

7. Reviewer's Conclusions: The study is scientifically sound and provides useful information. It does not fulfill any guideline requirement. It shows that Tilt is practically non-toxic to bobwhite quail.

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8. Methods and Materials:

Ten fish were tested per concentration level and in a control. The test material was 90% pure Tilt. The fish were acclimated 20 days and test 96-hours. Test containers were glass 15 liter aquaria. Temperature was 23 $\pm$ 2° C. Aquaria were aerated. Nominal concentrations: 1.8, 3.2, 5.8, 10 & 18 ppm.

9. Results:

96-hour LC_{50} = 6.4 ppm   95% C.L.: 5.4 to 7.7 ppm

Measured Conc. ppm	No. Tested	Mortality
control	10	0
solvent cont.	10	1
15.3	10	10
9.5	10	10
4.7	10	3
2.0	10	0
2.5	10	0

10. Statistical Calculation:

The LC_{50} values were calculated according to Spearman-Kaeber: 524-530 in D.J. Finney, London (1964).

11. Reviewer's Evaluation:

This study shows that Tilt is moderately toxic to warmwater fish. Normally aeration is not acceptable but since concentrations were measured in this study, it would not have an effect on the results. See the attached statistical printout for reviewer statistics. The results are similar to those reported.

12. Conclusion:

Category: Core

wrong sheet!! (SUN)

This is for Bluegill on item 2 acute tox

2

NOTE: THERE WAS CONTROL MORTALITY, BUT AT LEAST ONE
OF THE LOWER CONCENTRATIONS HAD ZERO MORTALITY.
THEREFORE, ABBOTT'S CORRECTION IS NOT APPLICABLE.

122101 TILT CGA-64250 BLUEGILL LC50

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
15.3	10	10	100	.0976563
9.5	10	10	100	.0976563
4.7	10	3	30	17.1875
2.5	10	0	0	.0976563
2	10	0	0	.0976563

THE BINOMIAL TEST SHOWS THAT 2.5 AND 9.5 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 5.51906

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE
PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE
NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

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