DATA EVALUATION RECORD
ALGAE OR DIATOM EC_{50} TEST
GUIDELINE 122-2 OR 123-2 (TIER I OR II)

1. **CHEMICAL:** 2-chloro-4,6-bis(isopropylamino)-s-triazine PC Code No.: 080808

2. **TEST MATERIAL:** Propazine Purity: 98%

3. **CITATION**

Authors: D. W. Gledhill; J. B. Bussard
Title: Acute toxicity of propazine to *Anabaena flos-aquae*
Study Completion Date: 5/22/95
Laboratory: ABC Laboratories, Inc.
Sponsor: Griffin Corporation
Laboratory Report ID: ABC Labs #41968-9
DP Barcode: D237791
MRID No.: 442873-12

4. **REVIEWED BY:** Thomas M. Steeger, Ph.D., Fishery Biologist, EEB, ERB IV, U.S. EPA

Signature: Thomas M Steeger **Date:** 10/2/97

5. **APPROVED BY:** Nicholas E. Federoff, Wildlife Biolgist, EFED, ERB IV, U.S. EPA

Signature: N. E. Federoff **Date:** 10/9/97

6. **STUDY PARAMETERS**

Scientific Name of Test Organism: *Anabaema flos-aquae*
Definitive Test Duration: 120 hours
Type of Concentrations: Mean measured/Nominal

7. **CONCLUSIONS:** This study is scientifically sound and does fulfill the 123-2 guideline requirements for acute toxicity tests for algae. The 120-hour EC_{50} was estimated to be 0.18 mg a.i./L. After 120 hours, the no-observed effect concentration was 0.068 mg a.i./L.

Results Synopsis

EC_{50}: 0.18 ppm ai 95% C.I.: 0.16-0.20 ppm ai
NOEL: 0.068 ppm ai Slope: 3.64

8. **ADEQUACY OF THE STUDY**

A. Classification: Core

B. Rationale: Methodology was consistent with FIFRA guidelines. Conclusions were verifiable.

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C. **Repairability:**

9. GUIDELINE DEVIATIONS

1.

10. SUBMISSION PURPOSE:

11. MATERIALS AND METHODS

A. **Test Organisms**

Guideline Criteria	Reported Information
Species *Skeletonema costatum* *Anabaena flos-aquae* *Selenastrum capricornutum* *Navicula pelliculosa*	*Anabaena flos-aquae*
Initial Number of Cells 3,000 - 10,000 cells/ml	4.1 x 10^3 cells/ml
Nutrients Standard formula, e.g. 20XAAP	macro/micronutrient stock solutions

B. **Test System**

Guideline Criteria	Reported Information
Solvent	dimethylformamide (DMF)
Temperature Skeletonema: 20°C Others: 24-25°C	24 ± 2°C
Light Intensity Anabaena: 2.2 K lux (±15%) Others: 4.3 K lux (±15%)	4,310 ± 650 Lux
Photoperiod Skeletonema: 14 h light, 10 h dark or 16 h light, 8 h dark Others: Continuous	Continuous

Guideline Criteria	Reported Information
pH Skeletonema: approx. 8.0 Others: approx. 7.5	Range: 7.5 - 7.8

C. Test Design

Guideline Criteria	Reported Information
Dose range 2X or 3X progression	2X
Doses at least 5	control, solvent control, 0.065, 0.13, 0.25, 0.50, and 1.0 mg/L
Controls negative and/or solvent	Control and solvent control
Replicates per dose 3 or more (4 or more for Navicula)	triplicates
Duration of test 120 hours	120 hours
Daily observations were made?	Yes
Method of Observations	hemacytometer/Olympus Model BH-2 microscope
Maximum Labeled Rate	1.2 lb ai/acre

12. REPORTED RESULTS

Guideline Criteria	Reported Information
Quality assurance and GLP compliance statements were included in the report?	Yes
Initial and 120 h cell densities were measured?	Yes (in control and solvent control)
Control cell count at 120 hr ≥2X initial count?	Yes (512X)

Guideline Criteria	Reported Information
Initial chemical concentrations measured? (Optional)	Yes
Raw data included?	Yes

Dose Response

Dose (mg ai/L)	Cell Density (x 10^4 cells/ml)	% Inhibition	120-Hour pH
Control	210	--	7.8
Solvent Control	210	--	7.8
0.068	220	+4.76	7.8
0.13	160	-23.81	7.7
0.26	42	-80.91	7.7
0.52	32	-85.45	7.7
1.0	8.9	-95.95	7.6

Other Significant Results:

Statistical Results

Statistical Method: ANOVA (Proc GLM)/multiple means comparison (Dunnett's); Proc NLIN used to estimate B and EC_{50}

EC_{50}: 0.18 ppm 95% C.I.: 0.16 - 0.20 ppm

Slope: 3.64 NOEC: 0.068 ppm

13. **Verification of Statistical Results**

Statistical Method: TOXANAL

EC_{50}: 0.201 ppm 95% C.I.: 0.101-0.370 ppm

Slope: 3.12 NOEC: 0.068 ppm

Adjusted for active ingredient:

EC_{50}: 0.18 ppm ai 95% C.I.: 0.16 - 0.20 ppm ai

DP Barcode: D237791 MRID No.: 442873-12

NOEC: 0.068 ppm ai

14. REVIEWER'S COMMENTS: