DATA EVALUATION RECORD

1. CHEMICAL: Paclobutrazol

2. FORMULATION: PP 333, Technical; 92.4% a.i.


4. REVIEWED BY: John J. Baschietto Wildlife Biologist EEB/HED

5. DATE REVIEWED: 1-20-83

6. TEST TYPE: 96-hr. LC50 - Freshwater Fish
   A.) Test Species: Bluegill Sunfish (Lepomis macrochirus)

7. REPORTED RESULTS: LC50 values (mg/l. PP 333)

<table>
<thead>
<tr>
<th>24-HR</th>
<th>48-HR</th>
<th>72-HR</th>
<th>96-HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.5</td>
<td>26.1</td>
<td>26.1</td>
<td>23.6</td>
</tr>
<tr>
<td><em>(24.6-30.8)</em></td>
<td><em>(23.9-28.4)</em></td>
<td><em>(23.8-28.4)</em></td>
<td><em>(20.4-26.0)</em></td>
</tr>
</tbody>
</table>

   * 99.8% c.i.
   ** 95% c.i.

8. REVIEWER'S CONCLUSIONS: The study is scientifically sound and with an LC50 = 23.6 (20.4-26.0) mg/l. PP 333 is considered "slightly toxic" to Bluegill Sunfish. The study fulfills the requirement for a 96-hr LC50 on a warmwater fish species.
9. Materials/Methods

A. Test Procedure: The test was conducted using procedures which
were in substantial agreement with the recommendations of the
EPA guidelines. Deviations from recommended protocols included:

- aeration of the test vessels during exposure.
- daily changes of the test solutions
- use of tap water in test vessels

B. Statistical Analysis: by Finney probit method (1971) for 48, 72
and 96-hr LC$_{50}$ by Stephan's (1971) LC$_{50}$ methods for 24-hr LC$_{50}$
because there was no partial response at any concentration at 24 Hrs.

10. Results

<table>
<thead>
<tr>
<th>Nominal conc. PP 333 (mg/l)</th>
<th>Mean measured conc. PP 333 (mg/l)</th>
<th>% mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>24-HR</td>
</tr>
<tr>
<td>32</td>
<td>30.8</td>
<td>100</td>
</tr>
<tr>
<td>24</td>
<td>24.6</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>17.3</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>10.2</td>
<td>0</td>
</tr>
<tr>
<td>5.6</td>
<td>6.2</td>
<td>0</td>
</tr>
<tr>
<td>DMSO solvent control</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Freshwater-control</td>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

Ten fish were exposed in each test concentration and in the freshwater
controls and solvent controls.

Water chemistry was acceptable within guidelines specifications.

Results of laboratory analysis of actual toxicant concentrations
providing exposures are indicated in the above table as "mean measured conc.
PP 333 (mg/l)."

11. Reviewer's Evaluation

A. Test procedure: The deviations from recommended protocol are acceptable
because -

- aeration and daily changes of test solutions are mitigated
by the analytical determinations of PP 333 in the test vessels

- use of tap water - it was "soft" by EPA criteria, and did not
result in any control mortality or major toxic symptoms.

B. Statistical Analysis: The analyses conducted are valid and the
LC$_{50}$ and 95% c.i. reported reflect the raw data.
C. Results: The results are valid and acceptable as reported. The material is apparently only "slightly toxic" to bluegills according to EBB's criteria for toxicity.

D. Conclusions

1. Category: Core.
2. Rationale: Guidelines study
3. Repair: N/A