Validation Sheet

Formulation: assumed to be 100% a.i.

Chemical Name: San 326 10G

Validator: Ray Matheny

Date: 3/13/79

Test Type: Fish Acute 96 hr. LC

Test I.D. #: UCES Project #: 11506-16-oz

Citation: Calmbacher, C.W. et. al. 1978. Acute Toxicity of San 326 I Lot. No. 7801 To the Rainbow Trout, Salmo gairdneri Richardson. Prepared for Sandoz, Inc. by Union Carbide Environmental Services. (pg. 0072 with Accession No. 097840).

Validation Category: Core

Result: Species Test 96 hr. LC50 * Confidence Limits 0.36 mg/l (0.30 - 0.42 mg/l)
Rainbow trout

*As validated by the binomial test, an approximate LC50 for this data is also 0.36 mg/l (0.30 - 0.42). = 3200 ppb

Validation Category Rationale: Satisfies core data requirements.

Category Repairability/Rationale: NA

Abstract: Five groups of rainbow trout (@ 2 months of age were tested:
1, 0.56, 0.32, 0.18, and 0.1 ppm. Mortalities occurred at
the 3 highest; 3, 10 and 10, respectively. Dissolved
$O_2$ was 8.7 and the pH ranged from 7.53 to 7.41 after
96 hr. Toxic symptoms included dark discoloration,
mucous shedding, gyrating, erratic and inverted
swimming, gulping air and labored respiration.
**Rainbow Trout**

**96 hr. LC50**

<table>
<thead>
<tr>
<th>CONC.</th>
<th>NUMBER EXPOSED</th>
<th>NUMBER DEAD</th>
<th>DEAD</th>
<th>PERCENT</th>
<th>BINOMIAL PRGB. (PERCENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>9.76563E-2</td>
<td></td>
</tr>
<tr>
<td>.56</td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>9.76563E-2</td>
<td></td>
</tr>
<tr>
<td>.32</td>
<td>10</td>
<td>3</td>
<td>30</td>
<td>17.1875</td>
<td></td>
</tr>
<tr>
<td>.18</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>9.76563E-2</td>
<td></td>
</tr>
<tr>
<td>.1</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>9.76563E-2</td>
<td></td>
</tr>
</tbody>
</table>

The binomial test shows that .18 and .56 can be used as statistically sound conservative 95 percent confidence limits since the actual confidence level associated with these limits is 99.8047 percent.

An approximate LC50 for this set of data is **363505**.

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.