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VALIDATION SHEET

URE #

00066943

PAGE

OF

3/21/78

Determination:

A. I. I.

SC #

CHEMICAL NAME

Technical?

PP581

A

B

T

FW

EC

R

Validator:

Date:

R. Balcomb

3/21/78

Test Type:

Fish Acute 96 hr. LC<sub>50</sub>:  
Rainbow Trout

Test ID. #

ES-G

CITATION:

CITATION: Hill, R.W. et al. Determination of the Acute Toxicity of PP581 to Rainbow Trout (*Salmo gairdnerii*). ICI; No. BL/B/1758. November 1976.

VALIDATION CATEGORY: Supplemental

RESULTS: The acute toxicity of PP581 was determined in Freshwater at 13°C. The toxicant was dissolved in DMSO and it was reported that a level of less than 10 mg/L of DMSO was used in the test vessels. The following mortality figures were determined:

24 hr. LC<sub>50</sub> = 0.155 mg/L48-hr. LC<sub>50</sub> = 0.09 mg/L96-hr. LC<sub>50</sub> = 0.051 mg/L

The no effect level was determined to be 0.015 mg/L.

VALIDATION CATEGORY RATIONALE: See preceding test ES-F

REPAIRABILITY: See preceding test ES-F.

90 a L not given

nominal used even though  
measured data was available



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Additional Comments

1. The exposure concentrations (measured and nominal) and survival:

Survivors 96-hr	0	0	0	0	10	10	10	10	10
Nominal	0.22	0.15	0.10	.068	.047	.033	.022	.015	.010
Mean Measured	0.182	0.125	0.103	.055	.029	.023	.0215	.0110	.0092

Ten fish were used per concentration level.

2. A flow-thru system was utilized. The  $LC_{50}$ 's were determined via a geometric mean survival period method:

$$GMSP = \exp \left\{ \sum_{i=1}^N \frac{N_i}{N} \sqrt{(\log e + t_1)^{N_1} (\log e + t_2)^{N_2} \dots (\log e + t_n)^{N_n}} \right\}$$

where  $N_i$  is number fish which die at time  $t_i$  and  $\sum_{i=1}^N N_i$  is the total fish in the test. Here total is ten.

3. Control tests were reported run but no survivorship information is given.
4. The lowest recorded Oxygen level was 87% of saturated, the pH range was 7.6-7.8.
5. Toxic symptoms included keeling and bleeding gills.
6. The fish ranged in weight from 4.9 to 6.8 with mean of 6.0 gm.
7. The 96-hr.  $LC_{50}$  calculated by the reviewer using measured concentrations was 0.045 mg/L (Regression Analysis).