-2890-1

VALIDATION SHEET

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FORMULATION:			IA	IB	T	FW	EC	R	
% a.i.	SC #	CHEMICAL NAME	Validator: Larry Turner					Date: 7/28/78	
75-86% (technical)		Endothall acid	Test Type: Aquatic invertebrate acute Toxicity Daphnia magna						
			Test ID.# ES-H2						

CITATION: Crosby, D.G. and R. K. Tucker. 1966. Toxicity of aquatic herbicides to Daphnia magna. Sicence, Vol. 154, pp 289-291. Study conducted at the Agricultural Toxicology and Residue Research Laboratory, University of California, Davis. Submitted by Pennwalt Corp., Pet # 1F 1105, Acc # 094509 (exhibit C-109), 12/1/70.

RESULTS: Daphnia magna 26-hour IC_{50} = 46 ppm (95% c.i. 36-57 ppm). The IC_{50} is the median immobilization concentration. Toxic symptoms were not reported. Daphnids surviving the 26-hour period were transferred to fresh medium. Those exposed at 25 and 50 mg/l survived for more than 30 days; those exposed at 84 ppm all died in 6 days.

VALIDATION CATEGORY: Core

CATEGORY RATIONALE: This test was accepted as core in spite of some deviations from standard protocol and unreported information. Reasons for acceptance include:

1. Insofar as reported, test procedures are scientifically valid. Test was conducted by an impartial lab and competent researchers.
2. The method of toxicant uptake in daphnids is such that an extrapolated 48-hr LC_{50} would very likely be the same as from 48 hour tests.
3. The test was conducted with technical endothall and other daphnid tests are required for formulations. The LC_{50} was well above a critical level.

ABSTRACT: First instars of Daphnia magna were exposed to several concentrations of technical endothall acid. Source of water and chemical analysis was reported. Twenty-five daphnids were tested in 100 ml beakers, with at least 3 replications per concentrations. At least 3 concentrations (25, 50 and 84 ppm) were tested, although raw data was not included, and more may have been tested.

Statistical analysis was by the method of Litchfield and Wilcoxon, but raw data was not included so that it could be checked.

R. K. Tucker was personally contacted concerning the test and felt that, although only a 26 hour exposure, the rest of the test was conducted in an acceptable fashion according to current guidelines.