Branch File

209994
RECORD NO.

SHAUGHNESSY NO.

REVIEW NO.

EEB REVIEW

DATE: IN 12/22/87 OUT 4/12/88

FILE OR REG. NO. 352-LNO

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 12/01/87

DATE RECEIVED BY HED 12/16/87

RD REQUESTED COMPLETION DATE 04/01/88

EEB ESTIMATED COMPLETION DATE 04/01/88

RD ACTION CODE/TYPE OF REVIEW 111

TYPE PRODUCT(S): I, D, H, F, N, R, S Herbicide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. R. Mountfort (23)

PRODUCT NAME(S) Express Herbicide (DPX-L5300)

COMPANY NAME E.I. du Pont de Nemours & Company, Inc.

SUBMISSION PURPOSE Replacement Acute Fish Studies

SHAUGHNESSY NO.	CHEMICAL & FORMULATION	% A.I.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Express Herbicide (DPX-L5300) - DuPont's December 1, 1987 Submission of Freshwater Fish Acute Studies (EPA Accession Nos. 404263-01 and 404263-02)

FROM: John Noles, Biologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769C) John Noles 4/3/88

THRU: Otto Gutenson, Acting Head-Section IV
Ecological Effects Branch
Hazard Evaluation Division (TS-769C) H.T. Craven 4/12/88

THRU: Henry T. Craven, Acting Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769C) Henry T. Craven 4/12/88

TO: Richard F. Mountfort, PM 23
Fungicide-Herbicide Branch
Registration Division (TS-767C)

EEB has reviewed the above-referenced studies, submitted by the registrant to support the registration requirements of Express Herbicide (DPX-L5300), assigned under EPA File Symbol 352-LNO. The review results are indicated below:

Guideline Ref. Nos.	Acute Test	Reported Results	Toxicity Category	Review Results
71-1	96-Hour Rainbow trout	LC_{50} > 1000 mg/L	Practically nontoxic	Supplemental
71-1	96-Hour Bluegill sunfish	LC_{50} > 1000 mg/L	Practically nontoxic	Supplemental

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The status of each study is subject to upgrade to Core Guideline, pending the submission of required information described in the attached data evaluation records.

Attachments

DATA EVALUATION RECORD

1. Chemical: Benzoic Acid, 2[[[[N-4-methoxy-6-methyl-1,3,5-triazin-2-yl-N-methylamino]carbonyl]amino]sulfonyl]-methyl ester

2. Test Material: Haskell Sample No. 15,527 (96.8% ai) (INL-5300-20)

3. Study Type: 96-Hour Freshwater Fish Acute Toxicity

   Species Tested: Rainbow Trout (Salmo gairdneri)

4. Study ID: Static Acute 96-Hour LC_{50} of INL-5300-20 to Rainbow Trout (Salmo gairdneri). Haskell Laboratory Report No. 37-86. January 24, 1986. EPA Accession No. 404263-01. Study Conducted and Submitted By E.I. du Pont de Nemours and Company, Inc.

5. Reviewed By: John Noles
   Biologist
   EEB/HED
   Signature: [signature]
   Date: 4/8/88

6. Approved By: Henry T. Craven
   Section Head, IV
   EEB/HED
   Signature: Henry T. Craven
   Date: 4/12/88

7. Conclusion:

This study is scientifically sound and with a 96-hour LC_{50} > 1000 mg/L, the pesticide is considered practically nontoxic to rainbow trout.

The study does not fulfill the Guideline requirement as supplemental data.

8. Recommendation:

Information listed in Review Section 14.a. must be submitted by the registrant in order to upgrade the study.

9. Background:

This study was previously submitted and found to be supplemental on the basis of minor protocol deviations and inadequate reporting. Reevaluation of the study will enable EEB to possibly upgrade the study's status, based upon additional information and the low toxicity of the pesticide.

10. Discussion of Individual Tests: N/A.

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11. Materials and Methods:

a. Test Animals - Salmo gairdneri, rainbow trout; commercially obtained from SP Engineering, Inc., Salem, Mass.; length = 3.9 to 5.2 cm; $\bar{X}$ length = 4.5 cm; weight = 0.93 to 1.86 g, $\bar{X}$ weight = 1.33 g.

b. Test System - Static freshwater; photoperiod - 16 L/8 D; temperature - 12 to 13 °C; water source - 15 liters of laboratory well water; all glass aquaria; plastic mesh used inside systems to control aggressive behavior of fishes.

c. Dose/Design - 420, 560, 750, 1000 mg/L with H_2O control and NaOH control. NaOH used to adjust pH.

Each treatment group utilized replicates with five fish each (10 fish total per treatment).

d. Statistics - Probit analysis of the test results gave a nonsigificant regression with no linear trend or dose response.

12. Reported Results:

Tables 1 and 2, indicated below, provide a summary of the mortalities and water chemistry measurements.

13. Study Author's Conclusions/QA Measures:

96-Hour LC_{50} > 1000 mg/L (the highest level tested): Mortalities partially attributed to aggressive behavior of fish during test.

The final report contained a quality assurance statement declaring that the study was in compliance with Good Laboratory Practice.

14. Reviewer's Discussion and Interpretation of the Study:

a. Test Procedures - The following information is required to complete the review of this study:

1) Protocol reference citation,

2) Water chemistry characteristics of well water, including contaminant levels.

3) Actual measurements of concentrations in test water to offset concerns that the plastic mesh

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used to control fish behavior may have absorbed the toxicant.

b. Statistical Analysis - No statistical analysis was conducted because of low mortalities and the lack of a linear dose response.

c. Discussion/Results - The reported 96-hour LC_{50} > 1000 mg/L indicates that the pesticide is practically nontoxic to rainbow trout.

Additional information/data is required for further evaluation.

d. Adequacy of Study

1) Classification - Supplemental.

2) Rationale - Inadequate reporting.

3) Reparability - Additional information required for study upgrade considerations.

15. Completion of One-Liner for Study:

One-liner form delayed until receipt of required information.

16. CBI Appendix: N/A.

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