

US EPA ARCHIVE DOCUMENT

CASE GS0097 CHLOROTHALONIL PM 400 08/03/82

CHEM 081901 Chlorothalonil (tetrachloroisophthalon

BRANCH EEB DISC 40 TOPIC 05103043

FORMULATION 00 - ACTIVE INGREDIENT

FICHE/MASTER ID 00029415 CONTENT CAT 01

Szalkowski, M.B.; Stallard, D.E.; Bachand, R.T., Jr. (1979) Acute Toxicity of 4-Hydroxy-2,5,6-trichloroisophthalonitrile (DS-3701) to Bluegill Sunfish (#"Lepomis macrochirus"); Research Report R-79-0004. (Unpublished study received Feb 19, 1980 under 677-313; submitted by Diamond Shamrock Agricultural Chemicals, Cleveland, Ohio; CDL:099248-M)

SUBST, CLASS = T; CHEM R39000 IS TRANSF, PRODUCT OF CHEM 081901

DIRECT RVW TIME = (MH) START-DATE END DATE

REVIEWED BY: Daniel Rieder
TITLE: Wildlife Biologist
ORG: EEB/HED
LOC/TEL: 557-7666

12/16/82

SIGNATURE:

Daniel Rieder

DATE:

APPROVED BY:

TITLE:
ORG:
LOC/TEL:

SIGNATURE:

DATE:

00029415

1. Chemical: Chlorothalonil
081901
2. Formulation: The test material is DS-3701 a degradate of chlorothalonil.
It is 4-Hydroxy-2,5,6-trichloroisophthalonitrile.
3. Citation: Szalkowski, M.B.; Stallard, D.E.; Bachand, R.T., Jr. 1979. Acute Toxicity of 4-Hydroxy-2,5,6-trichloroisophthalonitrile (DS-3701) to Bluegill Sunfish (Lepomis macrochirus): Research Report R-79-0004. Unpublished study received Feb. 19, 1980 under 677-3313; submitted by Diamond shamrock Agricultural Chemicals. Acc# 099248.
4. Reviewed by: Daniel Rieder
Wildlife Biologist
5. Date Reviewed: 10/5/82
6. Test Type: 96-hour LC50
Species: Bluegill Sunfish
Test Material: DS-3701
7. Results: 96-hr LC50 = 45 ppm
8. Conclusion: The study was scientifically sound and fulfills guideline requirements.
It shows that DS-3701 is only slightly toxic to bluegill sunfish.

Methods

Ten bluegill sunfish were tested in each of 5 concentrations (18, 32, 56, 100 and 180 ppm) and in two untreated controls. The test containers were 15 liter aquaria, one per test level. The test material was DS-3701.

Results:

The 96-hour LC50 = 45 ppm

95% C.L. = 35-58 ppm

The NEL was 18 ppm

<u>Concentration</u>	<u>Number tested</u>	<u>96-hr mortality (%)</u>
Control	10	0
Control	10	0
18	10	0
32	10	20
56	10	70
100	10	100
180	10	100

Dissolved oxygen and pH was measured every 24 hrs. in the highest concentration were fish still survived, in the lowest level and in a control. Temperature measurement were all within 1° of 22°. The DO was a little low at the end of 96-hrs... 3.2 to 3.7 ppm.

Discussion:

This study was done to determine what level should be used for a accumulation and depuration study with DS-3701. There were no problems with the study results or protocol. DS-3701 is apparently slightly toxic to Bluegill.

The EEB requested 96-hour acute toxicity test for DS-3701.

Conclusion:

Category: Core