Shaughnessy Number: 81901

Date out of EFGWB: FEB 23 1990

To: S. Stanton
Product Manager 41
Registration Division (H7505C)

From: Emil Regelman, Supervisory Chemist
Environmental Fate Review Section #2
Environmental Fate and Ground Water Branch
Environmental Fate and Effects Division (H7507C)

Thru: Hank Jacoby, Chief
Environmental Fate and Ground Water Branch
Environmental Fate and Effects Division (H7507C)

Attached, please find the EFGWB review of...

Reg./File #: 90-OR-05

Chemical Name: Chlorothalonil

Type Product: fungicide

Product Name: Bravo

Company Name: Fermenta (formerly Diamond Shamrock)

Purpose: emergency exemptiion (section 18) for use on filberts

Date Received: 2/16/90

Action Code: 510

EFGWB#(s): 90-0358

Total Reviewing Time (decimal days): 1.0

Deferrals to: ___Ecological Effects Branch, EFED

___Science Integration and Policy Staff, EFED

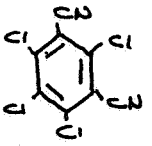
___Non-Dietary Exposure Branch, HED

___Dietary Exposure Branch, HED

___Toxicology Branch

1. CHEMICAL:

chemical name: 2,4,5,6-tetrachlorpisophthalonitrile
common name: chlorothalonil
trade name: daconil
structure:



CAS #: 1897-45-6
Shaughnessy #: 081901

2. TEST MATERIAL: n.a.

3. STUDY/ACTION TYPE: special local need (section 18)

4. STUDY IDENTIFICATION: n.a.

5. REVIEWED BY:

Typed Name: E. Brinson Conerly
Title: Chemist, Review Section 2
Organization: EFGWB/EFED/OPP

E.B. Conerly 2/23/90

6. APPROVED BY:

Typed Name: Emil Regelman
Title: Supervisory Chemist, Review Section 2
Organization: EFGWB/EFED/OPP

FEB 23 1990

7. CONCLUSIONS:

Two of the five data requirements for an EUP, and several others required for full registration on food crops are unfulfilled. Available data depict a compound which is stable to hydrolysis and photolysis, but susceptible to metabolism under most conditions. Because **PARENT OR DEGRADATES MAY LEACH**, a ground water monitoring survey has been required.

8. RECOMMENDATIONS:

The registrant of the chemical should respond with all due speed to provide the necessary studies and additional information to complete the data base.

9. BACKGROUND:

The status of data requirements is as follows:

hydrolysis -- fulfilled, stable at pH 5 and 7, 10% degrades in 30 days at pH 9, with 2,4,5,6-tetrachloroisophthalimide as the sole degradate

photolysis in water -- **not** fulfilled -- additional data are required (per 1988 draft registration standard)-- the submitted study could be made acceptable, and indicates stability of chlorothalonil to photolysis

soil photodegradation -- **not** fulfilled -- required by 1988 draft registration standard

aerobic soil metabolism -- not fulfilled -- the applicant must provide an acceptable aerobic soil metabolism study according to Guidelines subpart N, establishing the patterns of disappearance of parent, appearance and disappearance of degradates, and identity of degradates

anaerobic soil metabolism -- fulfilled by submission of acceptable anaerobic aqueous metabolism

anaerobic aquatic metabolism -- fulfilled -- a half-life of 5-15 days, producing 4-OH-2,5,6-trichloro-isophthalonitrile, 3-CN-2,4,5,6,-tetrachlorobenzamide, 2-OH-5-CN-3,4,6-trichlorobenzamide, and 3-carboxy-2,5,6-trichlorobenzamide

leaching/adsorption/desorption -- fulfilled; lab studies indicate low leachability, but findings in ground water have triggered monitoring requirements. [k_ds of 3 for sand to 29 for silt in batch adsorption/desorption studies.]

terrestrial field dissipation -- **partially** fulfilled

confined accumulation on rotational crops -- fulfilled, field studies indicate the need for establishment of tolerances

fish bioaccumulation -- ~~discussed in this review~~ not satisfied (see EBC 11/29.

10. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES: n.a.

11. COMPLETION OF ONE-LINER: no information added

12. CBI APPENDIX: n.a.