Shaughnessy No.: 029001

Date Out of EAB: MAR 29 1988

To: Lois Rossi
Product Manager #21
Registration Division (TS-767)

From: Emil Regelman, Supervisory Chemist
Review Section #3
Exposure Assessment Branch
Hazard Evaluation Division (TS-769)

Thru: Paul F. Schuda, Ph.D., Chief
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Attached, please find the EAB review of...

Reg./File # : 464 -511

Chemical Name: 1,3-Dichloropropene

Type Product : Nematicide/Fungicide/Insecticide/Herbicide

Product Name : Telone II

Company Name : Dow Chemical Company

Purpose : Addendum to a Standard. Review of photodegradation in air study; and, reevaluation of field dissipation/well water monitoring study.

Date Received: 11/6/87 & 11/25/87 Action Code(s): 605

Date Completed: 3/29/88 EAB #(s) : 80103 & 80150

Monitoring study submitted: ____ Total Reviewing Time: 2.5

Monitoring study voluntarily: ____

Deferrals to: ____ Ecological Effects Branch

____ Residue Chemistry Branch

____ Toxicology Branch

1. CHEMICAL: Common name:

1,3-Dichloropropene

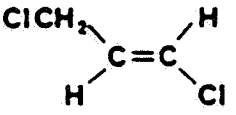
Chemical name:

1,3-Dichloropropene

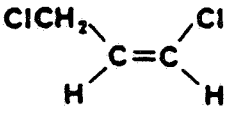
Trade name(s):

Telone II Soil Fumigant

Structure:



(trans)



(cis)

Formulations:

94% Ready to use (RTU)

Physical/Chemical properties:

Molecular formula: $C_3H_4Cl_2$.
Molecular weight: 111.
Physical state: Colorless to straw-colored liquid.
Vapor pressure: 22 mm Hg at 20°C.
Solubility: Water - 0.1%.

2. TEST MATERIAL:

Study 1: Active ingredient.
Study 2: Telone II.

3. STUDY/ACTION TYPE:

Review of photodegradation in air study; re evaluation of field dissipation/well water monitoring studies to satisfy data requirements for 1,3-Dichloropropene Registration Standard.

4. STUDY IDENTIFICATION:

Fontaine, D. and D. Teeter. 1987. Vapor-phase photodegradation of 1,3-dichloropropene. Dow Chemical U.S.A., Ag Chemical R&D Protocol #87083. Prepared by Analytical Bio-Chemistry Laboratories, Inc., Columbia, Missouri, and Dow Chemical U.S.A., Midland, MI; and submitted by Dow Chemical U.S.A., Midland, MI. (MRID #40390101)

Oliver, G.R., E.L. Bjerke, and F.C. O'Melia. 1986. Field dissipation study for Telone II soil fumigant. Prepared and submitted by Dow Chemical U.S.A., Midland, MI. (MRID #40403301).

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5. REVIEWED BY:

Padma Datta, Ph.D.
Chemist
Review Section #3
EAB/HED

Signature: PK Datta

Date: 3/29/88

6. APPROVED BY:

Emil Regelman
Supervisory Chemist
Review Section #3
EAB/HED

Signature: Elreg

Date: MAR 29 1988

7. CONCLUSIONS:

The study on photodegradation in air (§161-4) is acceptable to EAB. This study shows that 1,3-dichloropropene does not degrade in air. (For details, see the individual DER of 3/4/88 prepared by Dynamac).

The additional data provided to remedy the deficiencies of the terrestrial field dissipation/well-water monitoring study of Telone II in sandy soil in California (MRID #40403301) are acceptable to EAB. The combined data (See EAB review #70111, 6/22/87, and the individual DER of 3/4/88 prepared by Dynamac) make the terrestrial field soil dissipation study for Telone II soil fumigant in sandy soil in California (MRID #40403301) submitted by Dow Chemical Co on July 29, 1986 an acceptable study. However the §158.130 data requirement for the terrestrial field soil dissipation studies for Telone II (§164-1) is still only partially fulfilled because data from an additional site are required. (For details, refer to Subdivision N of the Pesticide Assessment Guidelines.)

8. RECOMMENDATIONS:

EAB recommends RD inform the registrant, Dow Chemical Co., that the data requirement for a photodegradation in air study (§161-4) is fulfilled and the terrestrial field soil dissipation studies (§164-1) data requirement is partially fulfilled to support registration of 1,3-dichloropropene for terrestrial food crops under 40 CFR §158.130. Data from an additional site are still needed to complete the data requirement for the terrestrial field soil dissipation studies (§164-1).

9. BACKGROUND:

EAB review #70111, 6/22/87, documented (1) additional study requirements for 1,3-dichloropropene, including photodegradation in air (§161-4), to support registration under 40 CFR §158.130; and, (2) deficiencies in the terrestrial field soil dissipation/well water monitoring study (§164-1). On 10/22/87, Dow Chemical Co. submitted a study for 1,3-dichloropropene on photodegradation in air (§161-4). On 11/28/87, Dow Chemical Co. submitted an addendum in response to the deficiencies documented in the terrestrial field soil dissipation/well water monitoring study in sandy soil in California (MRID# 40403301).

10. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES:

See attached review of individual study.

11. COMPLETION OF ONE-LINER:

12. CBI APPENDIX:

All data reviewed here are considered "company confidential" by the registrant and must be treated as such.