034401

11/19/85

Shaughnessy No.: 034401

Date Out of EAB: NOV 19 1985

Signature:

To: Wm Miller
Product Manager # 16
Registration Division (TS-767C)

From: Emil Regelman, Acting Chief
Review Section 3
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Attached please find the EAB review of...

Reg./File# : 239-1633

Chemical : Naled

Type Product: I

Product Name: Naled; Dibrom

Company Name: Chevron Chemical Company

Purpose : Protocol review, leaching studies for registration standard

ACTION CODE(s): 660

EAB # (s): 6035

Date Received : 10/11/85

TAIS Code: 66

Date Completed: 11/15/85

Total Reviewing Time: 2 Days

Monitoring requested

Monitoring voluntarily Done

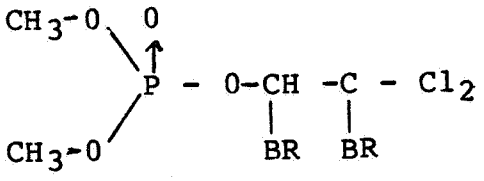
Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

1.0 CHEMICAL: Naled



1, 2 - Dibromo-2,2-dichloroethyl dimethyl phosphate

1.1 Other Names: Dibrom, Bromex

2.0 TEST MATERIAL:

(proposed)

[Ethyl-1-^{14}C] naled (Dibrom), specific activity > 10 mCi/m Mole and radiochemical purity > 98%

3.0 STUDY/ACTION TYPE:

Request by registrant for EPA review of protocol for leaching study.

4.0 STUDY INDENTIFICATION:

Protocol: Leaching of [Ethyl - 1 - ^{14}C] naled (DIBROM) and metabolites following exposure to four soils for one half-life. D.E. Pack. July 1, 1985. Chevron File # 750.012.

5.0 REVIEWED BY:

Hudson L. Boyd
Chemist, Review Section 3
EAB/HED/OPP

Signature Hudson Boyd
Date 11/15/85

6.0 APPROVED BY:

Emil Regelman
Acting Chief, Review Section 3
EAB/HED/OPP

Signature E Regelman
Date NOV 19 1985

7.0 CONCLUSIONS:

The proposed protocol conforms with EPA Guidelines, Subdivision N, Sec 163-1 requirements for soil column

studies except the following:

a. Registrant has not indicated that soils used will be in the pH range of 4 - 8.

b. Registrant has not proposed evaluating data by reporting values of soil/water relationships (K_d) for the test substance and its degradates.

8.0 RECOMMENDATIONS:

Registrant should amend protocol to include 7 (a)(b) above, and should note that data from column leaching studies will not fully fulfill requirements for data on the mobility of naled.

9.0 BACKGROUND:

Available environmental fate data for naled was previously reviewed for the registration standard. Data on the mobility of naled in the soils were not available at that time. This protocol was proposed by the registrant in the interest of filling part of the data gaps identified by the standard.

10. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES

10.1 Four soils treated with naled and aged under aerobic conditions at 25°C for a time equal to one half-life (predetermined) will be added to the same soils in columns exceeding 30 cm in length and subsequently leached by dropwise addition of 0.0005M $CaSO_4$ solution. Leachates will be collected in 50 or 100 ml fractions for a total of about 1000 ml volume. (columns have a cross sectional area of 18.9 cm^2, which by EPA Guidelines require a volume of at least 958 ml). After allowing the columns to drain they will be sliced into 6 cm segments and counted for radioactivity and later analyzed for naled and the three known aerobic soil metabolites using either techniques developed for the soil metabolism study or HPLC.

Each of the eluate fractions will be counted for total radioactivity and later analyzed for naled and its metabolites.

10.2 The proposed protocol does not cover batch equilibrium (adsorption) studies specified in Sec. 163-1 and in the TASK 2, Topical Discussions of available data prepared August 10, 1982, for the registration standard (naled).

11.0 COMPLETION OF ONE-LINER

Not applicable at this point

12.0 CBI APPENDIX

There is no CBI Appendix.