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

MAY 22 1985

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: ID# 080801. Ametryn and others groundwater data call-in.
RCB# 823.

FROM: Sami Malak, Ph.D., Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Ph.D., Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Geraldine E. Werdig, PM# 50
Data Call-In Staff/IO
Registration Division (TS-767)

and

Sam Creeger, Section Head
Exposure Assessment Branch
Hazard Evaluation Division (TS-769)

Residue Chemistry Branch concurrently with Exposure Assessment Branch are requested to evaluate the adequacy of the data submitted by Ciba-Geigy for 15 chemicals as part of groundwater data call-in.

The data presented consist of one handwritten table listing the -log of octanol/water partition coefficients:

Active Ingredient[1/]	- Log K_{ow}[2/] Calculated	Experimental
Ametryn	3.1	-
Atrazine	3.5	2.8[3/]
Chlordimeform	2.9	-
Chlordimeform hydrochloride	-	-
Diazinon	3.6	-
Dipropetryn	3.8	-
Fluometuron	3.2	2.3
Methidathion	3.1	-
Metolachlor	2.8	3.1
Phosphamidon	-	-
Prometon	2.6	-
Prometryn	3.5	-
Propazine	4.0	-
Simazine	4.2	-
Terbutryn	3.4	3.7[3/]

1/ Includes Ciba-Geigy compounds subject to the EPA special grounwater data call-in.

2/ Log P = 5.00-0.67 log S, where S = umoles/liter water.

3/ Ecotox and Env. Safety 4:134-157,1980.

The octanol/water partition coefficient data for six chemicals werepreviously reviewed and found adequate for five out of six chemicals: ametryn, diazinon, dipropetryn, fluometuron, and prometon, and inadequate for prometryn:

Chemical	ID#	- Log K_{ow} @ 20C	Reviewer and Date
Ametryn	35503	4.1	J. Garbus - 12/20/84
Diazinon	057801	4.4	K. Dockter - 12/31/84
Dipropetryn	104401	4.3	J. Garbus - 12/20/84
Fluometuron	35503	3.2[1/]	J. Garbus - 12/20/84
Prometon	080804	4.3	K. Dockter - 1/17/85
Prometryn	80805	4.1	A. Reiter - 2/19/85

1/ Reported by Ciba-Geigy in this submission as 2.3.

Conclusions and Recommendations

1. The octanol/water partition cofficients of six pesticides were previously reported and found adequate for five out of the six. These chemicals and their - Log K_{ow} values are: ametryn, 4.1; diazinon, 4.4; dipropetryn, 4.3; fluometuron, 3.2 ; and prometon 4.3. The information supporting the K_{ow} for prometryn was found inadequate.

2. The octanol/water partition coefficient data for ten chemicals are inadequate and should be reported in the format described in the Pesticide Assessment Guidelines, Subdivision D. These chemicals are: atrazine, chlordimeform, chlordimeform hydrochloride, methidathion, metolachlor, phosphamidon, prometryn, propazine, simazine, and terbutryn.

TS-769:RCB:S.Malak:vg:CM#2:Rm810:X77377:5/20/85
cc: R.F., Circu., Reviewer, S.F. (each of the 15 chemicals listed in this review), PMSD/ISB
RDI: E. Zager, 5/17//85; R. Schmitt, 5/17/85