

US EPA ARCHIVE DOCUMENT



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 *Sami Malak*
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Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Ph.D., Chief
Residue Chemistry Branch
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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/} Calculated	^{2/} - Log K _{ow}	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 groundwater data call-in.
- 2/ $\log P = 5.00 - 0.67 \log S$, where $S = \text{umoles/liter water}$.
- 3/ Ecotox and Env. Safety 4:134-157,1980.

The octanol/water partition coefficient data for six chemicals were previously 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 coefficients 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