



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

DEC 6 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Technical Guidance for Alachlor Water
Monitoring Studies

FROM: Paul R. Lapsley, Chief *PL*
Special Review Branch
Registration Division (TS-767C)

TO: David Severn, Chief
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

On October 10 and 11, 1985, the Agency met with Monsanto Chemical Co. to discuss alachlor ground and surface water monitoring protocols and preliminary results. The 2-day meeting primarily focused on factors used to develop the design of the studies.

At the conclusion of the meeting, the Agency agreed to summarize major areas in need of improvement or clarification. Monsanto obligated their present and future activities to these forthcoming requirements. Recently, Monsanto has approached Michael McDavit on the status of obtaining this information.

Monsanto also mentioned that in order to incorporate these changes into next year's sampling program, the Agency needs to act quickly. In the meantime, I believe we must follow through on our commitment to provide Monsanto with technical guidance on the ground and surface water monitoring studies. If another meeting with Monsanto is needed, SRB will arrange one.

Please let me know when this information will be available. I thank you for your cooperation on this matter.

*Stuart
Carolyn*

What is our response?

*Dave
12/16*

(1)

ALACHLOR

TABLE A
GENERIC DATA REQUIREMENTS FOR

Data Requirement	Composition	1/ Use 2/ Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?
<u>\$158.130 Environmental Fate</u>					
<u>DEGRADATION STUDIES-LAB:</u>					
161-1 - Hydrolysis	TCGI OF PAIRA	A,B,H	Yes	Acc No. 241135	NO
<u>Photodegradation</u>					
161-2 - In water	TCGI OF PAIRA	A,B	Yes	(4)	NO
161-3 - On soil	TCGI OF PAIRA	A	Yes	Acc No. 241135	NO
161-4 - In Air	TCGI OF PAIRA	A	Yes	{ Acc No. 252489 Acc No. 070591	NO (8)
<u>METABOLISM STUDIES-LAB:</u>					
162-1 - Aerobic Soil	TCGI OF PAIRA	A,B,H	Yes	{ Acc No. 241135 MRID 00033014 Acc No. 070841	NO
162-2 - Anaerobic Soil	TCGI OF PAIRA	A	Yes	{ Acc No. 070841 Acc No. 241135	NO (5)
162-3 - Anaerobic Aquatic	TCGI OF PAIRA	N/A		Acc No. 241135	NO (6)
162-4 - Aerobic Aquatic	TCGI OF PAIRA	N/A		Acc No. 241135	
<u>MOBILITY STUDIES:</u>					
163-1 - Leaching and Adsorption/Absorption	TCGI OF PAIRA	A,B,H	Yes	(7)	NO
163-2 - Volatility (Lab)	TEP	A	Yes	{ Acc No. 070591	NO (8)
163-3 - Volatility (Field)	TEP	A	Yes	{ Acc No. 252489	NO (8)
1/ Composition: TCGI = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabelled; TEP = Typical end-use product.					
2/ The use patterns are coded as follows: A-Terrestrial, Food Crop; B-Terrestrial, Non-Food; C-Aquatic, Food Crop; D-Aquatic, Non-Food; E-Greenhouse, Food Crop; F-Greenhouse, Non-Food; G-Forestry; H-Domestic Outdoor; I-Indoor.					
3/ Data must be submitted no later than <u>four years</u>					

TABLE A
GENERIC DATA REQUIREMENTS FOR **ALACHLOR**

Date Requirement	Composition	1/ Use 2/ Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data be Submitted Under FIFRA Section 3(c)(2)(B)?
<u>§136.130 Environmental Fate (continued)</u>					
<u>DISSIPATION STUDIES-FIELD:</u>					
164-1 - Soil	TEP	A, B, H	Yes	Acc. No. 070841	NO
164-2 - Aquatic (Sediment)	TEP	N/A			
164-3 - Forestry	TEP	N/A			
164-4 - Combination and Tank Mixes		N/A	—	Acc. No. 070841	NO (9)
164-5 - Soil, Long-term	TEP	A	NO	—	NO (10)
<u>ACCUMULATION STUDIES:</u>					
165-1 - Rotational Crops (Confined)	PAIRA	A	Partial	MRID 00033015 Acc. No. 070841	Yes (11)(12)
165-2 - Rotational Crops (Field)	TEP	A	NO	—	Yes (12)
165-3 - Irrigated Crops	TEP	N/A			
165-4 - In Fish	TOTAL OF PAIRA	A, B	Yes	Acc. No. 346506	NO
165-5 - In Aquatic Non-Target Organisms	TEP	N/A		—	Yes (13)
Subpart K Re-entry		A	NO		

1/ Composition: ICAI - Technical Grade of the active ingredient; PAIRA - Pure active ingredient, ratiolabeled;
TEP - Typical end-use product.
2/ The use patterns are coded as follows: A-Terrestrial, Food Crop; B-Terrestrial, Non-Food; C-Aquatic, Food Crop;
D-Aquatic, Non-Food; E-Greenhouse, Food Crop; F-Greenhouse, Non-Food; G-Forestry; H-Domestic Outdoor; I-Indoor.
3/ Data must be submitted no later than Four years.

Footnotes for Alachlor Table A

4. Southerland, M.L. and Curtis, T.G., Monsanto Agri R&D Final Report on the photolysis of Lasso in soil and in water. Report #262 (1972).
5. Data for anaerobic aquatic metabolism also apply to anaerobic soil metabolism.
6. Aerobic aquatic data have been submitted but are not required.
7. Citations: Accession numbers 241135, 070841 and MRID 00027140, 00027139, 00078301.
8. The exposure studies cited will satisfy data requirements for 161-4 Photodegradation in Air, 163-2 Volatility (lab) and 163-3 Volatility (Field).
9. The requirement for combination and tank mix data is reserved. Tank mix data for Lasso ME can be found in the reference cited.
10. The results of the aerobic soil metabolism study and field dissipation studies indicate that data will not be needed.
11. Data on ^{14}C take by corn seedlings at the four pound per acre rate and on uptake into other crops at the one pound per acre rate are acceptable. Additional data are needed at actual use rate levels including the chemical identification of plant residues.
12. For crops rotated on treated areas, any one of the following will apply:
 - (a) A tolerance must be obtained for the rotated crop.
 - (b) The product label must include a restriction against the rotation of crops used for food or feed on treated areas.
 - (c) Data must be provided to determine time intervals at which rotated crops planted on treated areas will be free of pesticide residues.
13. Until data are submitted and evaluated, reentry to treated fields is restricted for 24 hours following the application of alachlor unless protective clothing is worn.

Alachlor - Registration Standard

Recommended label restrictions for Alachlor:

1. Groundwater contamination:

The labeling must list specific, currently registered sites that the product is intended to be used on after manufacturing into an end-use product or the manufacturing-use product will be considered to be for manufacturing into end-use products for all registered use sites.

Products label for terrestrial use(s) must be classified for "RESTRICTED USE" and the labels must bear the following groundwater precautionary statements:

Alachlor is known to leach through soil and has been found in groundwater. Users are advised to apply this product only where groundwater contamination is unlikely. Do not apply in recharge areas of designated Sole Source Aquifers, or in areas with well-drained soils as defined by Class A of the Soil Conservation Service classification system which overlay shallow aquifers or which are not protected by an overlying impervious layer. Consult the proper state regulatory officials in your area for information on the location of sole source recharge areas, and the local agent of the Soil Conservation Service for information on your specific soil characteristics."

The above label changes must be made by December 31, 1984.

2. Rotational Crop restriction:

"Do not rotate crops used for food or feed which are not registered for use with alachlor on areas previously treated with this chemical".

3. Reentry restriction:

Do not reenter treated areas for 24 hours following application unless protective clothing is worn.

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