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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

3 October 1990

MEMORANDUM

SUBJECT: Review of Phase IV Package for Prometon
EFGWB No.: 90-0884
Case No.: 2545
Chemical Code: 080804
DP Barcode: D155671

TO: Amy Rispin, Chief
Science Analysis and Coordination Staff
Environmental Fate and Effects Division (H7507C)

THRU: Emil Regelman, Supervisory Chemist
Chemistry Review Section #2
Environmental Fate and Ground Water Branch (H7507C)

THRU: *to* Robert Holst, Deputy Chief
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Environmental Fate and Effects Division (H7507C)

FROM: Gail Maske, Chemist
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The Phase IV review package for List B Chemical prometon (Case 2545) was provided to EFGWB in September 1990. Upon review of the package, it was determined that prometon is registered for terrestrial nonfood uses. Prometon registration is supported by Ciba-Geigy Corporation.

Ciba-Geigy supplied summaries in the Phase IV package for the following Environmental Fate studies. According to EFGWB files, these studies have been previously reviewed and fulfilled the Environmental Fate Data Requirement, as well.

No summaries were supplied for the following studies by Ciba-Geigy. However, EFGWB files indicate these Environmental Fate Data Requirements have been fulfilled.

162-1	Aerobic soil metabolism	Fulfilled (MRB;06/03/88)	40145501
162-2	Anaerobic soil metabolism	Fulfilled (MRB;06/03/88)	40145501

DER's for the above studies are available with the associated review.

In lieu of the Terrestrial field dissipation data requirement (163-1), a ground-water monitoring study as defined in the draft Small-Scale Retrospective Ground-Water Monitoring Guidelines is required. This study must include tests in three geographically and hydrogeologically diverse locations representative of the areas in the United States where prometon is used. In addition, the ground-water monitoring study should sufficiently address depth of leaching which was not satisfactorily addressed in the supplemental terrestrial field dissipation study. (Since these guidelines are still in the developing stages, a protocol for the study should be submitted to EFGWB, Michael Barrett, Acting Chief, Environmental Fate Ground-Water Section, before initiation of study.)

The anaerobic aquatic metabolism and confined rotational crop accumulation studies were incorrectly listed as required in the Phase III package. Based on the terrestrial non-food use pattern, anaerobic aquatic metabolism and confined rotational crop accumulation studies for prometon are not required at this time.

A batch equilibrium adsorption/desorption (163-1) study was submitted with the Phase IV package. However, the leaching, adsorption/desorption data requirement has already been fulfilled (MRB;06/03/88). Therefore, the new leaching, adsorption/desorption study was not reviewed but will be incorporated into the on-liner as supplemental data.

In conclusion, the following is only Environmental Fate Data Requirement which has not been fulfilled for registration of prometon at this time.

166-2 Small-Scale Retrospective Ground-Water Monitoring

TABLE A. GENERIC DATA REQUIREMENTS FOR PROMETON

Data Requirement	Test Substance ¹	Use Pattern ²	Does EPA have data to satisfy the requirement?	Biblio. Citation	Must additional data be submitted?
<u>\$158.290 Environmental Fate</u>					
<u>DEGRADATION STUDIES-LAB:</u>					
161-1 - Hydrolysis	TGAI/PAIRA	B	Yes	41114801	No
<u>Photodegradation:</u>					
161-2 - In Water	TGAI/PAIRA	B	Yes	40225801	No
161-3 - On Soil	TGAI/PAIRA	B	Yes	41114802	No
161-4 - In Air			No		No ³
<u>METABOLISM STUDIES-LAB:</u>					
162-1 - Aerobic Soil	TGAI/PAIRA	B	Yes	40145501	No
162-2 - Anaerobic Soil	TGAI/PAIRA	B	Yes	40145501	No
162-3 - Anaerobic Aquatic			No		No
162-4 - Aerobic Aquatic			No		No
<u>MOBILITY STUDIES:</u>					
163-1 - Leaching and Adsorption/Desorp.	TGAI/PAIRA	B	Yes	40225803	No
163-2 - Volatility (Lab)			No		No ³
163-3 - Volatility (Field)			No		No ³

TABLE A. GENERIC DATA REQUIREMENTS FOR PROMETON (continued)

Data Requirement	Test Substance ¹	Use Pattern ²	Does EPA have data to satisfy the requirement?	Biblio. Citation	Must additional data be submitted?
<u>\$158.290 Environmental Fate (cont.)</u>					
<u>DISSIPATION STUDIES-FIELD:</u>					
164-1 - Terrestrial (Soil)			No		No ⁴
164-2 - Aquatic (Sediment)			No		No
164-3 - Forestry			No		No
164-4 - Combination/Tank Mix			No		No
164-5 - Long Term Terrestrial			No		No
<u>ACCUMULATION STUDIES:</u>					
165-1 - Confined Rot. Crops			No		No
165-2 - Field Rotat. Crops			No		No
165-3 - Irrigated Crops			No		No
165-4 - Fish			No		No ⁵
165-5 - Aquatic Non-target Organisms			No		No

TABLE A. GENERIC DATA REQUIREMENTS FOR BIS(TRICHLOROMETHYL) SULFONE (continued)

Data Requirement	Test Substance ¹	Use Pattern ²	Does EPA have data to satisfy the requirement?	Biblio. citation	Must additional data be submitted?
<u>\$158.290 Environmental Fate (cont.)</u>					
<u>GROUND-WATER MONITORING STUDIES:</u>					
166-2 - Small-Scale Retrospective			No		Yes ⁴
<u>\$158.440 Spray Drift Data Requirements</u>					
201-1 - Droplet size spectrum	TEP		No		No
202-1 - Drift field evaluation	TEP		No		No

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TABLE A. GENERIC DATA REQUIREMENTS FOR BIS(TRICHLOROMETHYL) SULFONE (continued)

FOOTNOTES:

- (1) Test substance abbreviations: TGAI = technical grade active ingredient; PAIRA = radiolabeled pure active ingredient; TEP = typical end product.
- (2) Use pattern codes: A = terrestrial food crops; B = terrestrial non-food; C = aquatic food crop; D = aquatic non-food; E = greenhouse food crops; F = greenhouse non-food; G = forestry; H = domestic outdoor; I = indoor; NA = not applicable.
- (3) The photodegradation in air, volatility-lab, and volatility-field studies are not required at this time. The vapor pressure is 3.1×10^6 which is below the trigger factor for requiring these studies. As well, there are no uses of prometon in enclosed areas.
- (4) In lieu of the terrestrial field dissipation data requirement (163-1), a ground-water monitoring study as defined in the draft Small-Scale Retrospective Ground-Water Monitoring Guidelines is required, which must include tests in three geographically and hydrogeologically diverse locations representative of the areas in the United States where prometon is used. The ground-water monitoring study should sufficiently address the lack of definition of the depth of leaching demonstrated in the terrestrial field dissipation study.
- (5) The octanol/water coefficient is 4.3 at 20°C which is well below the trigger factor for requiring the fish accumulation study. At this octanol/water coefficient prometon should not accumulate in fish. In addition, according to the submitted data, aquatic life should not be exposed to prometon with present uses. Therefore, EFGWB concurs with the request for waiver of the fish accumulation study.