Shaughnessy No.:108501

Date Out of EAB:

JAN 07 1986

To: Robert Taylor
Product Manager 25
Registration Division (TS-767)

From: Samuel Creeger, Chief
Review Section #1
Exposure Assessment Branch
Hazard Evaluation Division (TS-769)

Attached, please find the EAB review of...

Reg./File # : 241-245

Chemical Name: Pendimethalin

Type Product :

Product Name :

Company Name :

Purpose :

Action Code(s): 660 EAB #(s) : 5947

Date Received: 9/24/85 TAIS Code:

Date Completed: JAN 07 1986 Total Reviewing Time: 2 days

Deferrals to: Ecological Effects Branch
Residue Chemistry Branch
Toxicology Branch

Monitoring study requested by EAB: /__/

Monitoring study voluntarily conducted by registrant: /__/

1. CHEMICAL: Pendimethalin, Prowl, CL 92,553

2. TEST MATERIAL:

3. STUDY/ACTION TYPE: Company response to Registration Standard

4. STUDY IDENTIFICATION:

5. REVIEWED BY:

Stephen J. Simko
Chemist
EAB/HED/OPP

Signature: S. Simko

Date: JAN 07 1986

6. APPROVED BY:

Samuel M. Creeger
Chief, Section 1
EAB/HED/OPP

Signature:

Date: JAN 07 1986

7. CONCLUSIONS:

See Discussion.

8. RECOMMENDATIONS:

The EAB response is as follows:

Anaerobic aquatic metabolism data gap: Not satisfied.

Aerobic aquatic metabolism data gap: Withdrawn.

Field volatility data gap: Deferred pending laboratory volatility results.

Irrigated crop data gap: Withdrawn unless a significant degradate is identified in the metabolism studies.

Field dissipation (soil) data gap: Not satisfied.

Long-term field dissipation data gap: Satisfied.

9. BACKGROUND:

The Pendimethalin standard currently lists only the hydrolysis data requirement as being satisfied.

10. DISCUSSION:

ISSUE: Anaerobic aquatic metabolism data gap

Registrant: The study "PROWL herbicide, pendimethalin (CL 92,553): Anaerobic Metabolism in Soil from a Rice Field" was approved by EAB prior to its initiation and should fulfill the anaerobic aquatic metabolism data requirement.

EAB Response: This study was previously reviewed by EAB on 4/23/84. This study is inadequate because the degradates were not identified. Also about 10% of the applied was unaccounted for.

ISSUE: Aerobic aquatic metabolism data gap

Registrant: EAB previously stated that an aerobic aquatic metabolism study would not be needed.

EAB Response: EAB agrees that an aerobic aquatic metabolism study will not be needed to support the rice use since such conditions are not representative of the use pattern.

ISSUE: Field volatility data gap

Registrant: We wish to defer the requirement for a field volatility until the results of the laboratory volatility study are reviewed.

EAB Response: EAB agrees to defer the field volatility data requirement until the results of the laboratory volatility study are reviewed.

ISSUE: Irrigated crop data gap

Registrant: EAB previously withdrew the requirement of an irrigated crop study due to review of previously submitted follow crop studies.

EAB Response: EAB agrees to withdraw the requirement of an irrigated crop study unless a significant degradate is identified in the anaerobic aquatic metabolism study.

ISSUE: Field dissipation (soil) data gap

Registrant: We do not understand the specifics of EAB's perceived problems with the analytical method that was used. This method was used in other studies previously accepted by EAB. We will provide soil and weather data for the field studies.

EAB Response: The analytical method determined total pendimethalin residues. It did not distinguish between degradates and the parent compound. This is important especially since the metabolism studies that have been submitted do not identify degradation products.

ISSUE: Long-term field dissipation data gap

Registrant: Three long-term dissipation studies were previously submitted but were not included in the standard; however, we consider report C-1510 to be invalid.

Roman, M. and J. Behm (1979). Prowl Pendimethalin (CL 92,553): Residues of CL 92,553 in Soil as Measured by GC Method M-520, (NE, 5 Annual PE, 1973-1977, unpublished report prepared by American Cyanamid Co., Princeton, N.J., Report No. C-1508)

Roman, M. and J. Behm (1979). Prowl Pendimethalin (CL 92,553): Residues of CL 92,553 in Soil as Measured by GC Method M-520, (OH, 5 Annual PE, 1973-1977, unpublished report prepared by American Cyanamid Co., Princeton, N.J., Report No. C-1509)

Roman, M. and J. Behm (1979). Prowl Pendimethalin (CL 92,553): Residues of CL 92,553 in Soil as Measured by GC Method M-520, (MN, 5 Annual PE, 1973-1977, unpublished report prepared by American Cyanamid Co., Princeton, N.J., Report No. C-1510)

EAB Response: These studies were previously reviewed in the Task 1 Review of Prowl dated 9/5/79. The first two studies are acceptable and fulfill data requirements for Long-term field dissipation although complete soil characteristics were not given. The third study is invalid because of poor experimental technique.

11. COMPLETION OF ONE-LINER: Not completed.

12. CBI APPENDIX: None.