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

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

March 22, 1991

MEMORANDUM

SUBJECT: Transmittal of EFED List B Review for Sodium Acefluorfen
(Case # 2605; Chemical # 114402

FROM: Jean Holmes, D.V.M., MPH
Science Integration and Policy Staff
Environmental Fate and Effects Division

THRU: Amy Rispin, Chief
Science Analysis and Coordination Staff
Environmental Fate and Effects Division

TO: Jay Ellenberger, Chief
Generic Chemical Support Branch
Special Review and Reregistration Division

Attached please find the following documents for the completed EFED review of Sodium Acefluorfen.

1. EFGWB review and data requirements table
2. EEB review and data requirements table
3. SACS Reregistration Summary Report

If you have any questions concerning this case, please contact Jean Holmes at 557-1694.

cc (with SACS Reregistration Summary Report attached)

Anne Barton
Paul Schuda
List B File
List B Cover Memo File
Hank Jacoby
Jim Akerman
Doug Urban

SACS REREGISTRATION SUMMARY REPORT
for Phase IV

FROM: Jean W. Holmes Jean W. Holmes Date 3-22-91

THRU: Amy Rispin

TO: Thomas Luminello

Active Ingredient: List B

Sodium Acifluorfen

1. Use Pattern (Sites) and Application Rate.

EFED reviewed the following use groups and sites for Sodium Acifluorfen:

A. Terrestrial Non-Food for paths and patios.

B. Terrestrial Non-Food Crop and Outdoor Residential for mulch; ornamental shade trees, herbaceous plants, lawns or turf, and woody shrubs or vines.

C. Terrestrial Food Crop for peanuts and soybeans.

D. Aquatic Food Crop for rice.

According to the Luis report, the maximum application rates of the active ingredient of Sodium Acifluorfen are as follows:

1) Peanuts - 0.5 lb/acre (A) with a maximum of 8 doses per cycle.

2) Soybeans - 0.75 lb/A with a maximum of 4 doses per cycle.

3) Rice - 0.25 lb/A with a maximum of 1 dose per cycle.

2. Registration Information

A. Kind of pesticide. (insecticide, herbicide, etc.)

EFED has reviewed Sodium Acifluorfen as a selective herbicide.

B. Target pest.

The target pests are weeds such as cocklebur, smartweed, nightshade,and jimsonweed.

C. Method of application.

According to the Luis report, Sodium Acifluorfen is applied as spray with aircraft, ground equipment, or sprayer; band treatment with ground equipment; and spot treatment with a hand held sprayer.

D. Formulation Issues and Structures.

There are other active ingredients in several products of Sodium Acifluorfen.

3. EEB Disciplinary Summary To highlight special issues

For Sodium Acifluorfen, in addition to the basic six studies, EEB is requiring the Acute Estu/Mari Tox Fish (72-3 a), Acute Estu/Mari Tox Mollusk (72-3 b), Acute Estu/Mari Tox Shrimp (72-3 c), Fish Early Life-Stage ((72-4 a), Seed Germ./Seedling Emergence (123-1 a), Vegetative Vigor (123-1 b), and Aquatic Plant Growth (123-2) studies. The chapter specifies those studies which are acceptable, unacceptable, and/or new requirements.

The Honey Bee Acute Contact (141-1) study is being waived on the basis of open literature reports that indicated a lack of toxicity to honey bees.

4. EFGWB Disciplinary Summary To highlight special issues

EFGWB is requiring hydrolysis, photodegradation in water and on soil; metabolism in aerobic soil, and aerobic/anaerobic aquatic; leaching and adsorp./desorp; short term terrestrial and aquatic field dissipation; accumulation in confined rotational crops, and irrigated crops; and small prospective and retrospective groundwater monitoring studies. The chapter specifies the studies held on reserve and those studies which are acceptable, unacceptable, and/or new requirements.

The Anaerobic Soil Metabolism (162-2) study would not be required because an Anaerobic Aquatic Metabolism study will satisfy this data requirement.

EFGWB concurs with the registrants request to waive the Photodegradation in Air (161-4), and the Lab and Field Volatility (163-2 and 3) studies based on the low vapor pressure of Sodium Acifluorfen (7.5×10^{-8} mmHg).

EFGWB concurs with the registrants request to waive the Bioaccumulation in Fish and Aquatic Non-Target Organisms (165-4 and 5) studies based on the low K_{ow}.

The Small Scale Prospective Groundwater Monitoring (166-1)

study was required because Sodium Acifluorofen is persistent and mobile. The Small Scale Prospective Groundwater Monitoring (166-1) study indicated the compound could leach to groundwater in a highly vulnerable environment; therefore, a Small Scale Retrospective (166-2) study in five sites was required.

5. Integrating Paragraph to highlight special issues

None at this time.

6. Studies to be flagged for early review for tier or other decisions

When the environmental fate studies are all in they should be put into review.

7. Any data waivers, special considerations, or special study needs? (special information needed for data waivers)

EEB - The Honey Bee Acute Contact (141-1) study is being waived on the basis of open literature reports that indicated a lack of toxicity to honey bees.

EFGWB - EFGWB concurs with the registrants request to waive the Photodegradation in Air (161-4), and the Lab and Field Volatility (163-2 and 3) studies based on the low vapor pressure of Sodium Acifluorfen (7.5×10^{-8} mmHg).

- EFGWB concurs with the registrants request to waive the Bioaccumulation in Fish and Aquatic Non-Target Organisms (165-4 and 5) studies based on the low K_{ow}.

- EFGWB concurs with the registrants request to waive the Anaerobic Soil Metabolism (162-2) study. This study is not required because an Anaerobic Aquatic Metabolism study will submitted to satisfy this data requirement.