DP Barcode : D207673
PC Code No : 129081
EEB Out : OCT 6 1994

To: Joanne Miller
Product Manager 23
Registration Division (7505C)

From: Anthony F. Maciorowski, Branch Chief
Ecological Effects Branch/EFED (7507C)

Attached, please find the EEB review of...

Reg./File # : 279-GRUO
Chemical Name : Sulfentrazone
Type Product : Herbicide
Product Name : Sulfentrazone 4F
Company Name : FMC Corp.
Purpose : New Chemical screen for use on Soybeans

Action Code : 010 Date Due : 10/3/94
Reviewer : Bill Evans

EEB Guideline/MRID Summary Table: The review in this package contains an evaluation of the following:

| GDLN NO | MRID NO | CAT | GDLN NO | MRID NO | CAT | GDLN NO | MRID NO | CAT |
|---|---|---|---|---|---|---|---|---|
| 71-1(A) | | | 72-2(A) | | | 72-7(A) | | |
| 71-1(B) | | | 72-2(B) | | | 72-7(B) | | |
| 71-2(A) | | | 72-3(A) | | | 122-1(A) | | |
| 71-2(B) | | | 72-3(B) | | | 122-1(B) | | |
| 71-3 | | | 72-3(C) | | | 122-2 | | |
| 71-4(A) | 433559-01 | | 72-3(D) | | | 123-1(A) | 433454-11 | |
| 71-4(B) | 433559-02 | | 72-3(E) | | | 123-1(B) | 433454-12 | |
| 71-5(A) | | | 72-3(F) | | | 123-2 | 433454-13 | |
| 71-5(B) | | | 72-4(A) | | | 124-1 | | |
| 72-1(A) | | | 72-4(B) | | | 124-2 | | |
| 72-1(B) | | | 72-5 | | | 141-1 | | |
| 72-1(C) | | | 72-6 | | | 141-2 | | |
| 72-1(D) | | | | | | 141-5 | | |

Y=Acceptable (Study satisfied Guideline)/Concur
P=Partial (Study partially fulfilled Guideline but additional information is needed
S=Supplemental (Study provided useful information but Guideline was not satisfied)
N=Unacceptable (Study was rejected)/Nonconcur

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

OCT 6 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

SUBJECT: New Chemical Screen for Sulfentrazone (DP Barcode D207673)
PC Code #: 129081

FROM: for Anthony F. Maciorowski, Branch Chief
Ecological Effects Branch
Environmental Fate and Effects Division (7507 C) 10/6/94

TO: Joanne Miller, PM 23
Herbicide Branch
Registration Division (7505 C)

The Ecological Effects Branch (EEB) has reviewed the subject package to determine acceptability for scientific review for the new chemical Sulfentrazone. The proposed use pattern for this chemical is a herbicide for use on soybeans at a maximum use rate of 0.375 lb ai/A in one year. It may be applied as a preplant incorporated or preemergence treatment by ground equipment only. Treatments may be broadcast or banded.

Previous EUPs on this a.i. have cited the following acute toxicity data.

| TEST TYPE | MRID | EVALUATION DATE | CLASSIF. | % A.I. | TEST DATE | RESULT |
|---|---|---|---|---|---|---|
| Quail, Acute Oral $LD_{50}$ | 419116-17 | 9/24/91 | core | 94.3 | ? | $LD_{50}$ >2250 mg/kg |
| Quail, Dietary $LC_{50}$ | 419116-18 | 10/8/91 | core | 94.3 | ? | $LC_{50}$ >5620 ppm |
| Mallard, Dietary $LC_{50}$ | 419116-19 | 10/8/91 | core | 94.3 | ? | $LC_{50}$ >5620 ppm |
| Bluegill sunfish, FW 96-h $LC_{50}$ | 419116-21 | 10/8/91 | core | 94.3 | ? | $LC_{50}$ = 93.8 mg/L |
| Rainbow trout, FW $LC_{50}$ | 419116-20 | 2/24/91 | core | 94.3 | ? | $LC_{50}$ > 120 mg/L |
| Daphnia magna, FW Invertebrate 48 h $EC_{50}$ | 419116-22 | 2/24/91 | core | 94.3 | ? | $EC_{50}$ = 60.4 mg/L |



(2)

In the above cited EUP Tier 2 plant studies were requested. In this regard a tier 2 seed germination/seedling emergence and vegetative vigor studies were submitted, however, only one aquatic plant species (Selenastrum capricornatum) was submitted in lieu of the required 5 test species for herbicides. The four additional species which must be tested are Anabaena flos-aquae, Skeletonema costatum, Navicula pelliculosa, and Lemna gibba. In addition, the avian reproduction (71-4), the fish early life stage (72-4 (a)), the aquatic invertebrate life cycle (72-4 (b)), and the acute $LC_{50}$s for marine/esturine organisms (72-3 (a-f)) were cited as reserved data requirements pending the environmental fate review. However, FMC corporation has submitted only the avian reproduction studies for the mallard duck and bobwhite quail without stating reasons for submitting these studies.

Accordingly, for purposes of this new chemical screen, the package for Sulfentrazone is incomplete. The four additional species which must be tested are Anabaena flos-aquae, Skeletonema costatum, Navicula pelliculosa, and Lemna gibba before this submission can be reviewed. Studies which have been submitted do not appear to show any glaring deficiencies.

If there are any questions concerning this review please contact Bill Evans at of my staff on 305-6754.