Shaughnessy No.:121001

Date Out of EAB: 14 FEB 1984

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 # : 7969-58

Chemical Name: BAS-9052H (sethoxydim)

Type Product : Herbicide

Product Name : Poast

Company Name : BASF

Purpose : Amended response to deferral from TB and RCB.
Determination of persistence of field residues.

ZBB Code : other

EAB #(s) : 4116(supplemental)

Action Code(s): 305

TAIS Code: 60

Date Received: 12.14.84

Total Reviewing Time: 1.0 days

Date Completed: 2.13.84

Deferrals to:

____ Ecological Effects Branch

____ Residue Chemistry Branch

____ Toxicology Branch

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1.0 INTRODUCTION

On 8/8/83 Residue Chemistry Branch requested quantification of soil residue levels of Poast herbicide (2-(1-(ethoxyimino)butyl)-5-(2-ethylthio)propyl)-3-hydroxy-2-cyclohexene-1-one) which may be present at the time of planting of any anticipated crops, following treatment of the soil as fallow land. Such residues (if any) would require RCB to classify the fallow use as a a food use, for which a tolerance would be required. This issue was restated in the Toxicology Branch review of 9/23/83.

Regrettably, the reference to Poast herbicide in both "Acceptable Common Names" and Chemical Codes List (Shaughnessy) incorrectly identified Poast as the sodium salt of Bentazon. Upon receipt of the EAB response, RCB alerted us to this discrepancy.

This response, therefore, contains the appropriate data review requested by RCB.

2.0 DISCUSSION OF DATA

Data to support the aerobic soil metabolism data requirement was reviewed by EAB on 11/24/80, at which time it was concluded that Poast degraded fairly rapidly in soil, with halflives of 4-5 days and 11 days in loamy sand and loam, respectively. In the loamy sand, 54% of the applied radioactivity remained after 3 months. The major degradate identified was the sulfoxide derivative. A copy of this review is appended.

In a second study reviewed on 7/22/82 (section 3.5), the rate of dissipation and leachability of Poast was evaluated under field conditions. A copy of this review is appended. EAB concluded that residues were not persistent in the soil, and did not leach. It should be noted however, that although residues were low, they were still measurable at some of the test sites, even after one year.

3.0 CONCLUSION

Following the application of Poast herbicide at rates of 0.75 lb ai/a and greater, detectable residues of parent and major degradate may be present in some soils under field conditions up to one year post application.

Emil Regelman
Chemist
EAB/HED
February 14, 1984