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Date Out of EFB: JUN 22 1982

To: Richard Mountfort
Product Manager 23
Registration Division (TS-767)

From: Mr. Samuel Creeger, Head (acting)
Review Section No. 1
Environmental Fate Branch
Hazard Evaluation Division (TS-769)

Attached please find the environmental fate review of:

Reg./File No.: 707-145

Chemical: Oxyfluorfen

[2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl)benzene]

Type Product: Herbicide

Product Name: Goal®

Company Name: Rohm and Haas

Submission Purpose: Addendum to Applicator Exposure Study

ZBB Code: 3(c)(5)

ACTION CODE: 576

Date In: 4/26/82

EFB # 302

Date Completed: 6/22/82

TAIS (level II)	Days
60	1

(1)

1.0 INTRODUCTION

On 4/13/82, EFB reviewed a Goal® 2E Applicator Exposure to PCE Study (Accession #246780, Zogorski, W.J. III. 1982. A Study to Measure applicator Inhalation Exposure to PCE During Commercial Field Application of Goal® 2E Herbicide. Technical Report Number TR36H-82-02) and concluded that the study had been well done.

The current submission (Accession #247205) is submitted as a supplement to that previous study, monitoring the mixer/loader-applicator exposure to parent oxyfluorfen.

2.0 STRUCTURE AND DIRECTIONS FOR USE

See previous reviews.

3.0 TECHNICAL REPORT NO. 34H-78-22

Fisher, J.D., W.M. Pierson and S.T. Satterthwaite. 1978. Goal 2E Applicator Exposure Study. Spring House Research Laboratories. Rohm and Haas Company. October 27, 1978.

Introduction

Goal® 2E was prepared for use then applied to a one-acre fallow field at a rate of 2 lb ai/A in 40 gallons of water carrier. Exposure of working personnel to dermal and inhalatory exposure to oxyfluorfen was evaluated during these operations.

Experimental

Dermal exposure to face, back of the neck, "v" of the chest and forearms was monitored by attachment of 4" x 4" Topper gauze sponges to the outside of disposable coveralls and/or hat. Hands were covered with white cotton gloves. Inhalation exposure was monitored by use of a Willson 1200 double filter respirator (modified). One urine sample was taken for each worker 24 hours following application.

Goal® 2E was applied using a Meyer ground sprayer through three Tee-jet 8004 spray nozzles 18 inches from the spil, spaced 20 inches apart on a 6' boom attached to the rear of the sprayer.

Gauze pads, filters and urine were suitably extracted, concentrated, and quantified by GC/ECD against an external standardization curve. Recoveries, based on spiked filters, were estimated.

Results and Discussion

Copies of summary tables are appended to this review. The data generated by this study suggest that the highest exposures occurred during the mixing-loading phase of the operation, and then mostly to the hands. This is consistent with the findings of other studies.

2

Mean applicator dermal and respiratory exposures were found to be about 0.10 mg/hour and 1.05 ug/m^3, respectively which seem low relative to other studies summarized in appended table IV. No oxyfluorfen was found in any of the urine samples.

Conclusions

It is regrettable that urine samples were not taken throughout the 24 hour period of exposure, since that may provide additional useful monitoring information. The 24 hour sample may represent a third voiding, and thus might be expected (a priori) to be negative.

The results of this study should not be considered a conclusive proof of the low exposure potential to oxyfluorfen. While they are suggestive, the number of data are extremely limited and should be treated as such.

Recommendation

This study is acceptable.

Emil Regelman
Chemist
EFB/HED (TS-769c)
June 22, 1982

RIN 0637-00

EFED Review - Oxyfluorfen

Page____ is not included in this copy.

Pages 4 through 7 are not included.

The material not included contains the following type of information:

____ Identity of product inert ingredients.

____ Identity of product impurities.

____ Description of the product manufacturing process.

____ Description of quality control procedures.

____ Identity of the source of product ingredients.

____ Sales or other commercial/financial information.

____ A draft product label.

____ The product confidential statement of formula.

____ Information about a pending registration action.

X FIFRA registration data.

____ The document is a duplicate of page(s) _____.

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The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.
