

US EPA ARCHIVE DOCUMENT

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Shaugh. No. 079101

EAB Log Out Date 10/12/84

Init. CR

To: William H. Miller
Product Manager (16)
Registration Division (TS-767)

From: Carolyn K. Offutt, Chief *Carolyn K. Offutt*
Environmental Processes and Guidelines Section
Exposure Assessment Branch, HED (TS-769)

Attached please find the environmental fate review of:

Reg./File No.: 476 - 2109

Chemical: Aspon

Type Product: Insecticide

Product name: _____

Company name: Stauffer Chemical Company

Submission Purposes: Response to a Registration Standard:

Review of analytical methodology to be used for quantification of
dislodgeable residues of aspon on turf

ZBB Code: ?

Action Code 606

Data In: 7/20/84

EAB #: 4462

Date Completed: _____

TAIS (Level II) Days

1

Deferrals To:

___ Ecological Effects Branch

___ Residue Chemistry Branch

___ Toxicology Branch

REVIEW OF ASPON ANALYTICAL METHODOLOGY

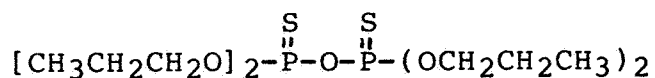
1.0 INTRODUCTION

On 2/11/81, Stauffer met with HED personnel to discuss their intended studies to satisfy the Aspon Registration Standard data requirements. As a result of that meeting Stauffer submitted a protocol for studies of dissipation of total and dislodgeable residues of ASPON applied to turf as their 6-E and 5-GA formulations. Their stated purpose is to evaluate potential exposure of humans and pets to these residues. I reviewed that protocol on 6/22/82 and stated: 1) that their protocol was acceptable as far as it went; 2) suggested that they consider more than one sample time for their own protection; and 3) suggested how their data could be used to estimate human exposure and for the calculation of a reentry interval if an interval is indicated.

Stauffer Chemical Co. has now submitted a detailed, chemical methodology for the quantification of Aspon on soil and turf along with data to support the validity of the methodology. That document is dated 7/2/84.

2.0 PESTICIDE STRUCTURE/NOMENCLATURE

Aspon: O, O, O, O-tetra-n-propyl dithiopyrophosphate.



Other names are: NPD, tetra-propyl diphosphorodithionate, and CAS# 3244-90-4

3.0 DISCUSSION

The submitted analytical methodology is acceptable for quantification of aspon residues on grass-leaves or soil. The methodology is generally excellent, but I have a few comments or suggestions.

Their analytical methodology for soil residues is redundant since the Agency currently does not use soil residue data for estimation of human exposure to pesticide residues on turf. However, I would be glad to review the data if it is submitted. Also, Subdivision K of the Pesticide Assessment Guidelines specifies that soil samples should be passed through a screen before extraction in order to obtain the fine fraction [147 micron diameter or less] that is considered to be the most important fraction for human exposure.

The glc quantification of organophosphorus residues with the nitrogen-phosphorus detector is a conservative, and therefore acceptable, approach since that detector is sensitive to extra-

neous non-OP chemicals as well as aspon residues. I would have chosen a flame-photometric detector in the phosphorus mode for aspon residue quantification since clean-up of samples would be simplified.

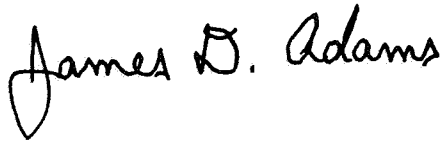
4.0 CONCLUSIONS

Their analytical methodology for quantification of aspon residues is acceptable.

This submission would have more properly been a part of the final submission rather than a separate document.

5.0 RECOMMENDATIONS

They should now proceed expeditiously in gathering and submitting the data required by the Registration Standard.

A handwritten signature in black ink that reads "James D. Adams". The signature is written in a cursive style with a large, looped initial "J".

James D. Adams, PhD
Chemist
Exposure Assessment Branch, TS-769