



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

OCT 28 1981

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

DATE: October 27, 1981

SUBJECT: 264-EUP-AN; 264-EUP-AR; PP#2G2581, 2H5325; Larvin in/on
Soybeans and Cotton. CASWELL#900AA Accession#070397

FROM: William Dykstra, Toxicologist
Toxicology Branch/HED (TS-769) *WHD JDC 10/27/81*

TO: Jay Ellenberger (12)
Registration Division (TS-767) *WHS*

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Recommendations:

1. The EUP programs and temporary tolerances are not toxicologically supported for the following reasons:
 - a) The inhalation LC₅₀ of Larvin 500 Thiodicarb Insecticide has not been adequately determined. There were no deaths at gravimetric concentrations of 0.0221 mg/L and 0.0836 mg/L (Toxicity Category I) in the Hazelton study (400-618; 2/8/80). The study needs to be repeated at higher gravimetric concentrations.
 - b) In the chronic toxicity/oncogenicity feeding study in rats, the animals selected for cholinesterase (plasma and RBC) determination were placed on control diet for 48 hours before sampling and on control diet for 24 hours before sacrifice for brain cholinesterase.

These procedures of placing the rats on control diets for 24 or 48 hours before sampling for cholinesterase inhibition prevents the determination of a NOEL for cholinesterase inhibition. A separate 30-day rat feeding study is required at dosages of 10, 3, 1, and 0.5 mg/kg/day of UC-51762 or less (plus controls) to determine the NOEL for plasma, RBC and brain cholinesterase. The samples taken for determinations of cholinesterase levels shall be from rats which are neither fasted nor placed on control diets for any period of time.

It was Toxicology Branch's understanding that at least an interim report of this study would be submitted prior to any further request for temporary tolerances.

Review:

1. Section F

The petition proposes that the following Temporary Pesticide and Feed Additive tolerances be established for the combined residues of Thiodicarb, Dimethyl N,N'-[thiobis[(methylimino)carbonyloxy]bis[ethanimidothioate], and its metabolite methomyl, N-[(methylcarbamoyl)oxy]thioacetimidate).

Pesticide Tolerances:

| | |
|-----------------|-----------------------|
| cottonseed | 0.4 parts per million |
| soybeans (seed) | 0.1 parts per million |

Feed Additive Tolerances:

| | |
|------------------|-----------------------|
| cottonseed hulls | 0.8 parts per million |
| soybeans hulls | 0.4 parts per million |

2. No new toxicity data were submitted.

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