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

OCT 24 1991

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: LABEL AMENDMENT: PERSONAL PROTECTIVE EQUIPMENT FOR APPLICATORS USING RONILAN AND USE OF WATER-SOLUBLE PACKAGING. (HED PROJECT #1-0051).

TO: Susan Lewis/Bob Rose/PM 21
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FROM: Shanaz Bacchus, Chemist
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THRU: Curt Lunchick, Section Head
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Please find the OREB Review of .....

HED PROJECT #: 1-0051

Reg File/Rec #:

Caswell #: 323C

Company Name: BASF Corporation

Date Received: 9/13/91 Action Code: 305

Reviewing Time: 1 day

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1.0 INTRODUCTION

BASF has voluntarily submitted a label amendment to include a precautionary statement regarding personal protective clothing and equipment required for applicators using Ronilan® (EPA Reg. Nos. 7969-53, 62, 85). This label amendment is in response to the evaluation by EPA's TOX Branch that the Margin of Safety for worker exposure may not be adequate. The registrant claims that earlier this year all Ronilan labels were amended and approved for more protective clothing requirements for the mixer/loader.

The voluntary label amendment submitted (10/16/90) requests approval for more protective clothing and equipment for the applicator during air blast applications. The registrant's decision is based on surrogate data which indicate that worker exposure during air blast applications is greater than during applications using other types of equipment (letter, 10/16/90, from Rodney Akers, BASF, to S. Lewis, RD).

In addition, to provide more protection to the mixer/loader, the use of water-soluble bags is proposed for any **Ronilan WP** formulations entering the US market. These packages of the **WP** formulation will be available for use when the registered use of the PVA bags is approved.

2.0 OCCUPATIONAL AND RESIDENTIAL EXPOSURE

DETAILED CONSIDERATIONS

Worker exposure to vinclozolin was assessed on the basis of use of Benlate on snapbeans (memo S. Knott, 4/9/90). A protocol for an actual worker exposure study using ground boom, aerial and airblast applications, was acceptable to OREB (memo S. Knott, 1/04/91). Actual worker exposure data for the use of Ronilan will be available when the results of these studies are submitted.

The surrogate data used to evaluate applicator exposure assumed ground boom and aerial applications and standard body weights of 70 kg for the workers. Mixer/loaders were assumed to be wearing long sleeved shirts and long pants which provided 50% protection from DF and FL formulations and 90% protection from WP formulations, and gloves which provided 90% protection from all formulation types. Ground boom applicators, pilots and flaggers were all assumed to wear long sleeved shirts and long pants that provide 50% to 100% protection from all formulations.

Pending receipt of actual worker exposure data, a label amendment for personal protective equipment (PPE) for mixer/loaders was approved. BASF is currently seeking approval

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for a label amendment to include PPE for applicators and for the use of water-soluble PVC bags to further protect the mixer/loader.

The engineering controls and personal protective equipment proposed on the label are as follows:

> "Application with air blast equipment must be from an enclosed cab or applicator must wear a protective suit of one or two pieces that cover all parts of the body except the head, hands, and feet. Wear chemical resistant gloves and chemical resistant shoes, or shoe coverings, or boots, and a chemical resistant hat, and a pesticide mask or respirator jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) for particulate and organic matters."

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 The above amendment is acceptable for the use of personal protective equipment for the applicator providing the label states that the protective suit is to be cotton or coveralls worn over long sleeved shirts and long pants. Decontamination procedures which were recommended for mixer/loaders (memo Winston Dang to James Stone/Susan Lewis, 4/26/90) should also be included for workers exposed to the pesticide i.e. washing thoroughly with soap and water after handling the pesticide and washing contaminated clothing thoroughly before reuse.

3.2 Based on inhalation data currently available Ronilan may be considered in the TOX III Category. The acute inhalation LC_{50} of vinclozolin (50%, EPA Reg. No. 7969-53) is greater than 29.1 mg/L (EPA TOX Oneliners, 9/23/91). Consequently, a pesticide mask as proposed by the registrant is not required and should be removed from the proposed label amendment.

3.3 The use of PVA bags is acceptable to OREB. It is interesting to note that the surrogate data used by OREB to evaluate worker exposure (memo S. Knott, 4/9/90) were based on an open pour loading system. The proposed use of PVA bags should reduce but will not eliminate the exposure to the pesticide of the mixer/loader. However, at this time we cannot estimate to what extent the closed system and the PVA bags will reduce worker exposure. Therefore, in the interim, until the actual worker data are submitted, the engineering controls and personal protective clothing and equipment except for respirators is acceptable. When the

actual worker data from field trials are submitted the label may require further revision.

cc: David Anderson, TOX H7509C
Vinclozolin File
Correspondence File
Circulation