


US EPA ARCHIVE DOCUMENT

Shaughnessy #: 042501

EAB Log-Out Date: JUN 19 1987

To: Susan Lewis
Product Manager #50
Registration Division (TS-767C)

From: Michael Firestone, Acting Chief 
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Attached please find the EAB review of...

Reg./File No.: 10352-13

Chemical: Propylene oxide

Type Product: Fumigant

Product Name: Propylene oxide

Company Name: Union Carbide

Submission Purpose: Exposure data requirements

ZBB Code: _____

ACTION CODE: 400

Date In: 6/12/87

EAB # 70738

Date Completed: 6/19/87

TAIS (level II) Days

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Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

_____ Benefits and Use Division

Monitoring study requested by EAB: / /



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

JUN 19 1987

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Exposure Data Requirements for Propylene Oxide

FROM: Laurie Lewis *Lewis*
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

TO: Susan Lewis
Registration Division (TS-767C)

THRU: Michael Firestone, Acting Chief *Michael Firestone*
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

EAB has been requested to provide a listing of worker exposure data that the Agency should require for propylene oxide, a fumigant registered for use on a variety of stored foodstuffs including cocoa, gums, glace fruit, processed nutmeats (except peanuts), and prunes (dried).

The registrant should submit a report which identifies and describes in detail all activities for which there is potential inhalation exposure of workers to propylene oxide, including propylene oxide released by the commodities which have been fumigated. All activities from the time of actual fumigation must be reported, including but not limited to all activities at the fumigation facility, all activities involved in transporting the fumigated commodity to the warehouses, and all activities of forklift operators and other warehouse personnel. The potential for dermal contact with liquid fumigant must be described for each identified work activity.

The report should estimate average hours per day and days per year that a worker is involved in each task. If an individual typically performs more than one work activity, this must be described. The report should also include all available and relevant work logs; the estimates of work hours should be justified by reference to these logs. The type

of clothing worn, including protective gear such as gloves or respirators, must be described in detail for each work activity. The number of individuals involved in each work activity must be estimated.

The registrant must also carry out a study of worker exposure using personal monitoring techniques as specified in Subdivision U of the Pesticide Assessment Guidelines, Applicator Exposure Monitoring. Potential inhalation exposure during each work activity described in the registrant's response must be measured. Monitoring must be done separately for each task, even if the same individual performs more than one task. Protocols must be submitted to the Agency for approval prior to study initiation. The protocol to be submitted by the registrant should contain a detailed consideration of quality control and quality assurance procedures.