

US EPA ARCHIVE DOCUMENT

11-9-95
FILE COPY



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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

NOV - 9 1995

MEMORANDUM

SUBJECT: Review of worker exposure assessment submitted in support of reregistration of methamidophos.

TO: Monica Spann, PM Team Reviewer
Registration Division (7505C)

FROM: Jim Carleton, Chemist

THRU: Larry Dorsey, Branch Chief
Occupational and Residential Exposure Branch
Health Effects Division (7509C)

DP Barcode: D220539

Pesticide Chemical Code: 101201 Methamidophos

EPA Reg. No.: 59639-56, 3125-280, 10163-220

EPA MRID No.: 43787201

Review Time: 3 days

PHED: No

INTRODUCTION

In response to a Data Call-In Notice (DCI), Bayer Corp. has submitted an exposure assessment for mixer/loaders, applicators, and flaggers who handle methamidophos, based upon data available in the Pesticide Handler's Exposure Database (PHED). OREB has reviewed the submission, and found it acceptable and in agreement with OREB's exposure estimates (memos 9/6/95, 10/17/95 from Jim Carleton).

DETAILED CONSIDERATIONS

Although Bayer approached the use of PHED data in a slightly different manner than OREB (eg. selecting only studies in which total pounds mixed was between 10 and 100), the unit exposures obtained were close or identical to OREB's in most cases. Unlike OREB, Bayer restricted their assessment to aerial (fixed wing) and groundboom mixer/loaders and applicators, and flaggers. Bayer's exposure calculations assumed 80 acres treated per day for groundboom, and 400 acres/day for aerial applications. By contrast, OREB employed acreage data supplied by the Biological and Economic Analysis Division (BEAD), which varied from 60 to 1440 acres per day, depending on crop/site. Bayer also assumed some protection factors for clothing and personal protective equipment (PPE) that were less conservative than those employed by OREB (eg. 90% for apron, vs. OREB's 50%). Despite these differences, Bayer's daily dermal exposure estimates (mg/Kg/day) usually fell within the range defined by OREB's estimates.

CONCLUSIONS

OREB has reviewed the mixer/loader, applicator, and flagger exposure assessment submitted by Bayer Corp. in support of reregistration of methamidophos. Despite some differences in assumptions and methodology, Bayer's exposure estimates are not substantially different from OREB's.

cc: J. Carleton/OREB
W. Hazel/RCAB
D. McCall/RCAB
Chemical file-Methamidophos
Correspondence file
Circulation