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

4-6-99

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

**MEMORANDUM**

DATE: 6-APR-1999

SUBJECT: **Chlorfenapyr - 129093: Health Effects Division Response to Comments to the Federal Register Notice for Use of the Chemical Chlorfenapyr (EPA File Symbol 000241-GAA) in/on Cotton. Case: 044966 Barcode: D253881, D254175; Submission: S557843.**

PP 4456

FROM: Marion Copley *Marion Copley April, 1999*  
Registration Action Branch I  
Health Effects Division (7509C)

*4/6/99*

THROUGH: Melba Morrow, Branch Senior Scientist  
Registration Action Branch I  
Health Effects Division (7509C)

TO: Ann Sibold/Arnold Layne  
Insecticide Rodenticide Branch  
Registration Division (7505C)

The Registration Division (RD) of OPP has requested that HED respond to comments (#s 34, 38, 174 and 377) for OPP Docket # 34162 on the notice of availability of Chlorfenapyr for use on cotton and determine whether they are likely to alter the Agency's risk assessment.

**CONCLUSIONS**

The comments listed below are unlikely to alter the Agency's risk assessment.

**DISCUSSION**

**Comment 34 - from Warren Porter**

**Response** - The registrant has submitted those toxicology studies (with the exception noted in the FR notice) required by the Agency guidelines. These include the acute (with the technical and formulation products), subchronic (oral and dermal), chronic, developmental, reproduction, mutagenicity, neurotoxicity (both acute and subchronic) and metabolism studies. The submitted data has been evaluated in detail in order to determine the toxicity endpoints for use in risk assessment. The registrant is still required to submit a developmental neurotoxicity study. The additional 10-fold FQPA Factor has been retained due to the lack of understanding of the cause, and possible further unknown neurotoxicity with regard to the developing young. This is in addition to the safety/modifying factor of 100 already incorporated into establishing the RfD from the NOAEL. Therefore, in the context of the Agency guideline requirements, all have been satisfied except for developmental neurotoxicity and this will be addressed in greater detail when the study is submitted and reviewed.

The Agency does not currently have requirements for dermal and inhalation developmental studies. When these routes of exposure are expected to be of concern, oral values are used (in the absence of route specific studies) incorporating an estimated absorption factor.

**Comment 38** - Michael McClelland: There is a lack of studies on chlorfenapyr and other pyrrole in the medical and biological literature.

**Response** - RD will address this issue since it is a generic concern. It should be noted that chlorfenapyr is in a new class of chemicals. The data that the Agency reviews is generally unpublished data submitted by the Registrant in order to satisfy Agency requirements.

**Comment 174** - Diane S. Henshel: This response will address items 2 and 4 submitted by the commenter.

**Response** - See response to comment 34. In addition, There has been further refinement of the % RfD children can potentially be exposed to (decreased from 106 to about 25%). This is presented in risk assessment for citrus on the OPP home page.

Regarding the commenter's concern about the cancer: In January 1997, the Health Effects Division Carcinogenicity Peer Review Committee completed a document discussing their consensus concerning the carcinogenic potential of Chlorfenapyr. The conclusion was that "Chlorfenapyr was characterized as 'cannot be determined, suggestive', based on increases in tumors in the rat only, which were not considered to be persuasive but could not be dismissed." They based their decision on the following information. The tumor increases were considered weak at best since they: (1) were only statistically significant for trend, and not by pair-wise comparison, (2) were present only at the highest dose, and within or only slightly above the historical range for the respective tumor types and, (3) did not occur in mice. While the

Committee did not feel the data supported saying that there was no carcinogenic effect, they concluded that the evidence was too weak to conclusively characterize chlorfenapyr as a carcinogen. In addition, the Committee concluded that the acceptable doses for the RfD would provide adequate protection for a cancer risk if it did exist.

**Comment 377** - Beth Feteni and Jay Feldman

**Response** - A study in developmental neurotoxicity is considered a data gap as noted by the commenter. Until this study is submitted and the issue is resolved, an additional safety factor (for FQPA) of 10X was retained and is added to the 100X that is already computed with the NOAEL to establish the RfD.

The commenter also expressed concern that farmworker residences have not been taken into account. At the present time there are no data to assess this type of exposure. The Agency is currently discussing methods for evaluating this generic issue. No formal guidance has been given to date.

cc: ID 000244-GAA Copley, R.F. PP 4/5/96  
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