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

OFFICE OF PREVENTION,
PESTICIDES AND TOXIC
SUBSTANCES

TO: Eugene Wilson
Registration Division (7505C)

FROM: Kevin J. Costello and Leo LaSota
Environmental Risk Branch 1 (7507C)
Environmental Fate and Effects Division *Kevin J. Costello 2/5/98*
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THROUGH: Arnet Jones
Environmental Risk Branch 1 (7507C)
Environmental Fate and Effects Division *Arnet Jones 02/05/98*

and

Daniel Rieder *Daniel Rieder 2/5/98*
Environmental Risk Branch 3 (7507C)
Environmental Fate and Effects Division

DATE: February 5, 1998

RE: Eco Data Requirements for α -Metolachlor

The memorandum of April 11, 1997 from Dan Rieder (EFED) to Joanne Miller (SRRD) reviews the ecological effects data provided for herbicide CGA 77102 (α -metolachlor) in submissions DP223753, DP223769 and DP233184. In the text of the memo, and in two attached tables, the EFED reviewer evaluated the acceptability of the individual studies for use in the registration package for this new metolachlor formulation. At the request of the registrant and the Registration Division, EFED provides this clarification of which data gaps must yet be filled for metolachlor and the new formulation α -metolachlor:

1. The 1997 memo states that the registrant has agreed to perform avian reproduction studies [71-4(a) and (b)] for both metolachlor and α -metolachlor. These studies must still be submitted for both formulations, as this is a data gap for both chemicals;
2. The fathead minnow life-cycle and early life stage study (72-4a) and daphnia 21-day flow-thru (72-4b) studies must be performed for α -metolachlor. The

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original studies performed for metolachlor were judged to be supplemental. Therefore, the results of these studies cannot be "bridged" to fill data gaps in the α -metolachlor registration data package;

3. The acute fish sheepshead minnow study [72-3(a)] performed for metolachlor cannot be "bridged" to satisfy the requirement for α -metolachlor. Comparison of the results for other acute fish studies [72-1(a) and (b)] shows possible differences between metolachlor and α -metolachlor;

4. Aquatic plant growth studies (123-2) for *A. flos-aquae* and diatom-*S. costatum* need not be performed for α -metolachlor. The results of other aquatic plant growth studies for metolachlor and α -metolachlor are sufficiently similar that the results of metolachlor studies for these two species can be "bridged" to fulfill the α -metolachlor requirements;

5. The vegetative vigor and seed germination/seedling emergence studies that have been categorized as supplemental are sufficient for risk assessment purposes. The remaining four species need not be tested. EFED will use the lowest EC25 values from the studies submitted to estimate risk.

6. The registrants should perform the acute mysid shrimp study [72-3(c)] and acute mollusk- *C. virginica* [72-3(b)] for α -metolachlor. Although the results of the acute daphnia study indicate that α -metolachlor is probably not more toxic to freshwater invertebrates than metolachlor, this is not adequate to justify such "bridging" for estuarine invertebrates.