

US EPA ARCHIVE DOCUMENT

4-13-82  
Duplicate

DATA EVALUATION

1. CHEMICAL: Cypermethrin
2. FORMULATION: 91.5 % active ingredient (technical grade)
3. CITATION: Jaber, M.J. (1981) the acute toxicity of Cypermethrin to fiddler crabs (Uca pugilator). Unpublished report by EG&G Bionomics submitted 12/28/81 by ICI Americas, Inc., Wilmington, Delaware.

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4. REVIEWED BY: Thomas B. Johnston  
Biologist, EEB/HED
5. REVIEW DATE: April 13, 1982
6. TEST TYPE: 96-hr acute LC<sub>50</sub> under flow-through conditions
7. REPORTED RESULTS: The reported acute 96-hr LC<sub>50</sub> of cypermethrin for fiddler crabs is 197 pptr, with 95% confidence limits of 162 and 243 pptr.
8. REVIEWER'S CONCLUSIONS: This study is scientifically sound, but does not fulfill USEPA guideline requirements for an acute toxicity test using an estuarine invertebrate. With a 96-hr LC<sub>50</sub> of 197 pptr, cypermethrin is very highly toxic to fiddler crabs.

ATERIALS/METHODS

Methods used generally followed USEPA guidelines. Fiddler crabs are not acceptable test organisms.

TATISTICAL ANALYSES

Data were analyzed according to the methods of Stephan (USEPA Duluth laboratory analysis program).

ESULTS

Mean Measured Concentrations (pptr)	No. Dead/No. Exposed
389	19/20
161	6/20
85	1/20
44	0/20
29	0/20
Solvent Control	0/20
Control	0/20

96-hr LC<sub>50</sub> = 197 pptr (162-243 pptr)

ONCLUSIONS:

Validation Category: Supplemental

Category Rationale: Fiddler crabs are not an acceptable test species. The test is otherwise sound.

Category Repairability: This study is not repairable.