

US EPA ARCHIVE DOCUMENT

TDMS
CASE GS 0014

DATA EVALUATION RECORD
ENDOSULFAN

PAGE 1 of 2
PM

72-2

CHEM 079401

BRANCH EEB DISC TOPIC

FORMULATION Technical

FICHE/MASTER ID 05017538 CONTENT CAT
Sanders, H.O. (1972) Toxicity of some insecticides to four species of malacostracan crustaceans. Washington, D.C.: U.S. Department of the Interior Fish & Wildlife Service. (U.S. Bureau of Sport Fisheries & Wildlife technical paper 66)

SUBST. CLASS =

DIRECT REVIEW TIME = 1 hr (MH) START DATE 8/26/80 END DATE 8/26

REVIEWED BY: John J. Bascietto
TITLE: Wildlife Biologist
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SIGNATURE:

DATE:

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE:

DATE:

Reviewer's Conclusions:
(see Coumaphos file for complete review). The reported value is for adult scud, Gammarus fasciatus. The study is scientifically sound and with an LC 50 = 0.14 ppb endosulfan is very highly toxic to adult scuds. The study does not satisfy the guidelines requirement for aquatic invertebrate LC50 because adults were used. It is known that immatures are more sensitive.

60 ppb (See copy of the document - attached)

Ann
(duplicate)

CASE CS0018

COUMAPHOS

~~COUMAPHOS~~ 017401

PM 410 07/23/80

CHEM 036501

0,0-Diethyl 0-(3-chloro-4-methyl-2-oxo-2H-1

BRANCH EEB DISC 40 TOPIC 05054547

FORMULATION 00 - ACTIVE INGREDIENT

FICHE/MASTER ID 05017538

CONTENT CAT 01

Sanders, H.O. (1972) Toxicity of Some Insecticides to Four Species of Malacostracan Crustaceans. Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service. (U.S. Bureau of Sport Fisheries and Wildlife technical paper no. 66)

SUBST. CLASS = S.

DIRECT RVW TIME = (MH) START-DATE 9-16-80 END DATE

REVIEWED BY:

TITLE:

ORG:

LOC/TEL:

SIGNATURE:

DATE:

APPROVED BY: *Curtis E. Laird*

TITLE: *Fishery Biologist*

ORG: *EEB/HED*

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SIGNATURE: *Curtis E. Laird*

DATE:

SEE REVIEW FOR
~~COUMAPHOS~~

COUMAPHOS

Herran O. Sanders: Toxicities of Insecticides to Malacostracans

803

Table 3.--Toxicity values of various technical grade organophosphate insecticides for scud, *Gammarus fasciatus*, calculated from static bioassays conducted in reconstituted water at 21° C.

Insecticide	LD50 value in micrograms per liter			
	at 24 hours		at 96 hours	
Coumaphos	0.56	(0.39-3.81)	0.15	(0.11-0.20)
Dichlorvos	1.8	(1.3-2.4)	0.40	(0.32-6.49)
Azinphosmethyl	2.0	(1.6-2.7)	0.38	(0.24-0.59)
Parathion	3.2	(2.0-7.0)	1.3	(0.60-1.9)
Malathion	3.8	(2.7-5.3)	0.76	(0.63-0.92)
Phorate	4.7	(2.6-8.8)	0.68	(0.36-1.0)
Imida (R)	5.0	(4.0-6.0)	2.0	(1.4-2.8)
Dursben (R)	5.6	(3.2-8.1)	0.32	(0.12-0.90)
Endosulfen	10	(7.0-14)	6.0	(4.0-8)
Ethion	18	(12-26)	9.4	(7.0-14)
Levinphos	19	(17-22)	3.5	(3.1-3.9)
Dioxathion	24	(20-29)	8.6	(5.4-14)
Naled	32	(20-51)	14	(11-18)
EPN	45	(35-58)	6.8	(3.8-13)
Ciodrin (R)	50	(33-75)	11	(8.0-15)
Phosphamidon	76	(75-95)	16	(10-26)
Disulfoton	110	(70-160)	27	(24-30)
Fenthion	220	(140-300)	110	(80-150)
Tepp	250	(170-340)	210	(150-280)
Demeton	500	(260-710)	27	(20-36)
Azodrin (R)	1,000	(760-1,300)	160	(120-280)
VC-13 (R)	1,200	(540-1,850)	110	(80-150)
Oxydemetonmethyl	2,100	(1,700-2,500)	1,000	(980-1,100)
Bifdrin (R)	5,600	(5,000-7,200)	2,600	(2,100-3,000)
Rufens (R)	5,700	(4,900-6,400)	3,700	(3,400-4,100)

1/ 95 percent confidence limits in parentheses.