Releasable

DATA EVALUATION RECORD

TRICHLORFON

Acute Oral Toxicity Potentiation Study in Rats

CITATION: Dow Chemical Co. 1965. Results of acute oral toxicity testing of Ronnel insecticide in paired combination with other cholinesterase inhibitors when administered to female rats. Unpublished study.

REVIEWED BY:

William L. McLellan, Ph.D.
Senior Scientist
Dynamac Corporation
11140 Rockville Pike
Rockville, MD 20852
301-468-2500

Signature: William L. McLellan
Date: July 09, 1983

Cipriano Cueto, Ph.D.
Program Manager
Dynamac Corporation
11140 Rockville Pike
Rockville, MD 20852
301-468-2500

Signature: Cipriano Cueto
Date: 29 July 1983

APPROVED BY:

Irving Mauer, Ph.D.
EPA Scientist

Signature:
Date: 07-30-83

3 pages

DATA EVALUATION RECORD

STUDY TYPE: Acute Oral (Feeding) Toxicity-Potentiation Study in Rats.

CITATION: Dow Chemical Co. 1965. Results of acute oral toxicity testing of Ronnel insecticide in paired combination with other cholinesterase inhibitors when administered to female rats. Unpublished study.

ACCESSION NUMBER: Not available.

MRID NUMBER: 00062031.

LABORATORY: Dow Chemical Company, Biochemical Research Laboratory.

TEST MATERIAL: The test materials covered in this review were Dylox (trichlorfon) and Ronnel (O,O-dimethyl-O-[2,4,5-trichlorophenyl]phosphorothioate); the purity of the pesticides was not stated.

PROTOCOL:

1. Ronnel was used in combination with Dylox (trichlorfon), ethion, tributyl phosphorotrithioate, Delnav or Co-Ral to determine possible potentiation.

2. Young adult female rats were used.

3. Mixtures (50-50 by weight) were prepared with Ronnel and each of the test materials. These mixtures were diluted in corn oil and administered as single oral doses.

RESULTS:

The LD_{50} of Dylox was 0.65 g/kg (95 percent confidence limits were 0.56-0.75); the LD_{50} of Ronnel was estimated as being 1.41 g/kg with no confidence limits calculable. The LD_{50} of a 50/50 mixture of Ronnel and Dylox was 1.09 (0.92-1.30). This indicated to the authors that there was no appreciable increase or decrease in acute oral toxicity by administering both pesticides. Pertinent dose-response data are summarized below:

Dose-Mortality Data*

Ronnel		Dylox		Dylox plus Ronnel	
Dose	Mortality	Dose	Mortality	Dose	Mortality
1.00	0/5	0.398	0/5	0.630	0/5
1.26	0/5	0.500	1/5	0.795	1/5
1.58	5/5	0.630	1/5	1.00	1/5
2.00	5/5	0.795	5/5	1.26	4/5
		1.00	5/5	1.58	5/5

* Dose expressed as milligrams of test material or combination per kilogram of body weight (mg/kg).

CONCLUSIONS:

The concurrent oral administration to female rats of a 50/50 combination of Dylox and Ronnel did not result in an increase or decrease of toxicity as compared to the toxicity of each chemical administered separately.

CORE CLASSIFICATION: The study is classified as Core Supplementary. The study is limited because duration of the observation period was not specified, time to death of the dosed animals was not recorded, only female rats were used, and it is not possible to determine the LD_{50} of Ronnel and its confidence interval.