(TDRC3R) DATA EVALUATION RECORD PAGE 1 OF

CASE GS0140 ALDICARB PM 9/29/82

CHEM 098301

BRANCH EEB DISC TOPIC Special Order

FORMULATION 00 Active Ingredient

FICHE/MASTER ID 00102038 CONTENT CAT 01

Hudson, R.; Tucker, R.; Haegele, M. (1972) Effect of age on sensitivity: Acute oral toxicity of 14 pesticides to mallard ducks of several ages. Toxicology and Applied Pharmacology (22):556-561. (Also In unpublished submission received Oct 26, 1977 under 1016-69; submitted by Union Carbide Corp., Arlington, VA; CDL:096397-E)

SUBST. CLASS # J.

OTHER SUBJECT DESCRIPTORS
PRIM:
SEC:

DIRECT RVW TIME = 4 Hours (MM) START DATE 1/9/78 END DATE 1/9/78

REVIEWED BY: Larry Turner
TITLE: Biologist
ORG: EEB
LOC/TEL:

SIGNATURE: Richard P. Stevens DATE: 1/20/84

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

098301 VALIDATION SHEET CRF #_____ PAGE ____OF ____

FORMULATION:		
% a.i.	SC #	CHEMICAL NAME
95%		ALDICARB

FICHE ID 00102038

IA	IB	T	FW	EC	R		

Validator: Larry Turner

Date: 1/9/78

Test Type: Avian acute oral LD_{50} mallard duck

Test ID.# ES-C[1]

CITATION: Hudson, R.H., R.K. Tucker, and M.A. Haegele. 1972. Effect of Age on sensitivity: acute oral toxicity of 14 pesticides to mallard ducks of several ages. 6p. Toxicology and Applied Pharmacology 22:556-561. Submitted by Union Carbide Corp. pp. 6F 1849; Reg # 1016-69/78; Acc #096397. 10/26/77.

Results: Mallard duck acute oral LD_{50} = 4.44 mg/kg (95% i.i. 3.49-5.65 mg/kg for 6 month old birds. LD_{50}s for other age mallards were 1.92 (1.55-2.37) mg/kg for 36 hour birds, 3.60 (2.90-4.49) mg/kg for 7 day birds, and 6.73 (5.29-8.55) mg/kg for 30 day birds. Dose levels were not reported, nor were 0% and 100% mortality levels Toxic symptoms were not reported.

Validation Category: supplemental

Category rationale: Basically no more information was presented than the raw LD_{50} and 95% c.i.

Category repairability: No. Only five birds were used per concentration.

Abstract: This paper reports primarily on the sensitivity of different aged mallards (36 hr, 7 days, 30 day, 6 months) to several pesticides. LD_{50} values varied not only with age, but also with type of pesticide. In general, young ducks were more susceptible to pesticides, but this was not always true.

With respect to mallard LD_{50} for aldicarb, only final figures are given for LD_{50}. No raw mortality data or dose concentrations were reported. Five birds were used at each dose level. Food consumption and body weights were not reported. Neither were housing conditions, length and schedule of observation period, times of mortality, nor toxic symptoms. The method of LD_{50} calculation was not reported.

098301

STUDY VALIDATION

DATA REVIEW NUMBER: ES-C-1

TEST: Avain acute oral

SPECIES: Mallard duck (Anas platyrhynchos)

RESULTS: LD_{50} values for four age groups were determined:

AGE		TOXICITY LC_{50} (95% conf. limits)
36 hr.	3 hrs.	1.92 mg/kg (1.55 - 2.37 mg/kg)
7 days	1 day	3.60 mg/kg (2.90 - 4.49 mg/kg)
30 days	3 days	6.73 mg/kg (5.29 - 8.55 mg/kg)
6 mo.	3 days	4.44 mg/kg (3.49 - 3.65 mg/kg)

The experiment was designed to determine the effect of age on mallard sensitivity to toxicants. To determine the effect, LD_{50}'s were run on different aged kinds using 5 doses with 5 birds per dose level (personal communication with R. Tucker).

CHEMICAL: Temik 95% purity

TITLE: Effect of Age on Sensitivity: Acute Oral Toxicity of 14 Pesticides to Mallard Ducks of Several Ages

RESEARCHER: R. H. Hudson, R. K. Tucker, and M. A. Haegele, Denver Wildlife Research Center

ACCESSION NO: 096397 ("Document #4)

STUDY DATE: Circa 1971

REGISTRANT: Union Carbide Corp.

VALIDATION CATEGORY: Supplemental

CATEGORY REPAIRABILITY: Yes, to CORE if the following data is submitted:

1. Bird weights and food consumption during the testing period.

2. Raw mortality data so that a statistical analysis may be performed.

3. Signs of intoxification

4. Date of study

NOTE: It is recognized that the referenced study was conducted at a U.S. Government lab by highly qualified investigators, however, due to a lack of the requested data the study was validated as supplemental