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MEMORANDUM

Date: August 28, 1981

Subject: EPA File Symbol: 264-GUA
Weedone 2,4-DP Manufacturing Concentrate.

From: Deloris F. Graham 8/31/81
FHB/TSS

To: Richard Mountfort
Product Manager (23)

Applicant: Union Carbide Ag. Prod. Co., Inc.
T.W. Alexander Drive
P.O. Box 12014
Research Triangle Park, NC 27709

Active Ingredients:

2,4-Dichlorophenoxy acetic acid butoxyethyl ester	46.7%
2,4-Dichlorophenoxypropionic acid	45.9%
Inert Ingredients	7.4%

Background: Acute Oral, Acute Dermal, Eye Irritation and Primary Dermal Irritation studies were submitted. These studies were conducted by CDC Research, Inc. Cite-all method of support. Data under accession numbers 245493, 245494, 245495, and 245496.

Recommendation:

1. FHB/TSS finds these studies acceptable to support conditional registration of this product.

2. The appropriate signal word as determined by the data submitted is CAUTION.

3. An Acute Inhalation Study was not submitted, however it may be necessary to cite and/or submit one at some point-date-time in the future.

Label:

1. The signal word CAUTION must appear on the center front panel preceded by "Keep out of reach of children."

2. The statement of practical treatment must be revised similar to the following:

> "If swallowed, call a doctor or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. In case of contact, flush eyes with plenty of water; flush skin with plenty of soap and water. Get medical attention if irritation persists."

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Review:

1. Acute Oral Toxicity Study: CDC Research, Inc.; Study #CDC-UC-006-81; March 30, 1981; Accession #245493.

   Procedure: Six groups consisting of 5M and 5F Sprague-Dawley rats each. Each group received one of the following doses: 0.32, 0.50, 0.63, 0.715, 0.80 and 1.00 ml/kg. Observations made frequently on day of dosing, and four times a day for 14 days thereafter. Necropsy performed on all animals.

   Results: At 0.5 ml/kg dose, 3/10 animals died; 2/10 died at 0.63 ml/kg; 4/10 died at 0.715 ml/kg; 8/10 died at 0.8 ml/kg, 9/10 died at 1.0 ml/kg. Symptoms observed included depression, hyperactivity, loss of sighting lacrimation, hypothermia, and ataxia. Necropsy revealed gastric erosions, blood and/or dark material in stomach and intestines, hematuria and dark red spleen, orange fluid in abdominal cavity. LD_{50} was 0.738 ml/kg (0.887 g/kg) with 95% confidence limits between 0.625 and 0.871 ml/kg.

   Study Classification: Core Guideline Data

   Toxicity Category: III-CAUTION

2. Acute Dermal Toxicity Study: CDC Research, Inc; Study #CDC-UC-005-81; March 18, 1981; Accession #245496.

   Procedure: 5M and 5F rabbits received a 2 ml/kg dose at abraded skin sites under occlusive wrap for 24-hour exposure. Daily observations for 14 days. Necropsy performed on all animals.

   Results: No mortalities. Mild skin reaction in 2/10 rabbits. Palyclipsia and anorexia in 1/10 animals and 3/10 had diarrhea. Necropsy revealed fluid filled GI tract and 3-4cc of clear fluid in the abdominal cavity. LD_{50} greater than 2 ml/kg (2.405 g/kg).

   Study Classification: Core Guideline Data.

   Toxicity Category: III-CAUTION.

3. Eye Irritation Study: CDC Research, Inc.; Study #CDC-UC-003-81; March 3, 1981; Accession #245495.

   Procedure: A 0.1 ml aliquot was instilled into one eye of each of nine New Zealand white rabbits. The treated eye of three of the rabbits was washed with lukewarm tap water 30 seconds after treatment. Observations made at 24, 48, 72, 96 hours and 7 days.

   Results. No corneal opacity or iris irritation in washed or unwashed group of animals. At 24 hours, conjunctive redness in 3/6 animals of

unwashed group (3/6=1) and 1/6 had chemosis (1/6=1). Irritation had cleared by 48 hours.

Study Classification: Core Guideline Data

Toxicity Category: III-CAUTION

4. Primary Dermal Irritation Study: CDC Research Inc.; Study #CDC-UC-004-81; March 9, 1981; Accession #245494.

Procedure: Six rabbits received a 0.5 ml aliquat at 2 abraded and 2 intact skin sites under occlusive wrap for 24-hour exposure. Observations made at 24 and 72 hours.

Results: Slight erythema in 1/6 animals at 24 hours, but clear by 72 hours. Primary Irritation Score was 0.02.

Study Classification: Core Guidelines Data.

Toxicity Category: IV - CAUTION

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