UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

005377

MEMORANDUM

DATE: July 8, 1982

SUBJECT: EPA File Symbol: 264-GTE
Technical Naphthalene Acetic acid

FROM: Deloris F. Graham DFG 7/20/82
FHB/TSS E 7/20/82

TO: Robert Taylor
Product Manager (25)

Applicant: Union Carbide Agricultural Products Company
P.O. Box 12014, T.W. Alexander Drive
Research Triangle Park, NC 27709

Active Ingredient:
1-Naphthyl Acetic Acid 95.0%
Inert Ingredient 5.0%

Background: Submitted Acute Oral, Acute Dermal, Acute Inhalation, Eye Irritation and Primary Dermal Irritation Studies. Studies conducted by Union Carbide, MB Research Laboratories and Pharmakon Research International. Data under accession number 247577. Method of support not indicated.

Recommendation:
(1) FHB/TSS finds the Acute Oral, Acute Dermal, Eye Irritation and Primary Dermal Irritation Studies are acceptable to support conditional registration of this product.

(2) The Acute Inhalation Study is Core Supplementary Data and unacceptable to support conditional registration of this product. In the Acute Inhalation Study actual concentrations must be submitted; equal number of male and female animals must be used; individual necropsy reports and symptomatology reports for each animal must be submitted.

(3) The appropriate signal word is DANGER.

Label:
(1) The precautionary statements must be revised to include "Corrosive, causes irreversible eye damage."

(2) The statement "Keep out of reach of children" must precede signal word.

184

085377

Review:

(1) Acute Oral Toxicity Study: Pharmakon Research International; PH 402-UC-001-82; April 29, 1982.

Procedure: 5 groups consisting of 5M and 5F each received one of the following doses: 1750, 2250, 3000, 3500, and 4000 mg/kg. Observations made daily for 14 days. Necropsy performed on all animals.

Results: At 1750 mg/kg, 1/5 M and 3/5 F died; at 2250 mg/kg, 1/5 M and 2/5 F; at 3000 mg/kg, 3/5 M and 4/5 F; at 3500 mg/kg, 5/5 M and 4/5 died; at 4000 mg/kg, 5/5 M and 5/5 F died. Signs of toxicity observed included convulsions, piloeriction, abnormal gait, twitches, abnormal stance, decreased activity and body tone; arched back, puestration, salivation, ptosis, tremors, hypersensitivity to touch, red exudate in nasal area, ataxia, body drop, straub tail and brown discoloration of genital and anal area. Necropsy revealed red adrenals; stomach and intestines filled and distended, hemorrhages and white foci present on the lungs. LD50 for males and females was determined to be 2520 mg/kg with 95% confidence limits between 2100 and 3024 mg/kg.

Study Classification: Core Guideline Data

Toxicity Category: III CAUTION

(2) Acute Dermal Toxicity Study: Pharmakon Research International, Inc; PH 422-UC-001-82; May 11, 1982.

Procedure: 5 M & 5 F rabbits recieved 2 g/kg of the test material at abraded skin under occlusive wrap for 24 hour exposure. Observations were made at 2 and 4 hours after 24 hour exposure period and twice daily thereafter for 14 days. Necropsy performed on all animals.

Results: 1/10 animals died on day 11. No sign of toxicity observed. No visible lesions in the one animal that died during the study. At termination of study, necropsy revealed fluid-filled intestines and stomach distention in one rabbit. No other lesions observed. LD50 greater than 2 g/kg.

Study Classification: Core Guideline Data

Toxicity Category: III-CAUTION

(3) Acute Inhalation Toxicity Study: MB Research Lab., Inc.; Project # MB 75-849; August 13, 1975

Procedure: Ten male Wistar rats were exposed to a nominal concentration of 20,000 ppm in a 51-liter closed chamber for one hour. Observations made for 14 days after exposure.

2

Results: No mortalities. No signs of toxicity.

Study Classification: Core Supplementary Data. An equal number of male and female animals must be used. Actual concentrations must be used and mg/l units is the preferable way of expression. Individual symptomotology and necropsy reports must be submitted.

(4) Primary Eye Irritation Study: Union Carbide; Project Report 45-51; April 27, 1982.

Procedure: Nine rabbits recieved 100 mg of the test material in one eye each. The treated eyes of the three of the rabbits were washed 20 to 50 seconds after treatment. Observations made at 1, 2, 3, 4, 7, 10, 14 and 21 days after treatment.

Results: At 24 hours, 6/6 animals of the unwashed group and 3/3 of the washed group had corneal opacity ((1/6=10, 1/6=20, 1/6=30, 3/6=40)(1/3=5, 1/3=20, 1/3=40); 6/6 and 1/3 iris irritation (6/6=5) (1/3=2); 6/6 and 3/3 had redness (5/6=2, 1/6=3) (2/3=1, 1/3=2), chemosis (5/6=1, 1/6=2) (3/3=1) and discharge (3/6=2, 3/6=3) (2/3=1, 1/3=2).

At 7 days, 5/6 and 1/3 corneal opacity(3/6=5, 2/6=10) (1/3=10); 2/6 iris irritation (2/6=5); 4/6 redness (4/6=1); 1/6 chemosis (1/6=1); 3/6 discharge (2/6=1, 1/6=2).

At 14 days, 2/6 and 1/3 corneal opacity (1/6=5, 1/6=80) (1/3=5); 1/6 iris irritation (1/6=5); 1/6 and 1/3 redness (1/6=2), chemosis 1/6=2) and discharge (1/6=3).

At 21 days, 1/6 and 1/3 corneal opacity (1/6=80) (1/3=5); 1/6 iris irritation (1/6=5); 1/6 an 1/3 redness (1/6=2) (1/3=1); 1/6 chemosis (1/6=2); and 1/6 and 1/3 discharge (1/6=3) (1/3=1).

Lids closed at 24 and 48 hours. Vascularizaton at 7 days. Pteryguim at 10 days.

Study Classification: Core Guideline Data.

Toxicity Category: I-DANGER

(5) Primary Skin Irritation Study: Union Carbide; Project Report 45-51; April 27, 1982.

Procedure: Six rabbits received 500 mg of the test material at 2 abraded and 2 intact skin sites per animal under occlusive wrap for 24-hour exposure. Observations were made at 24 and 72 hours after treatment.

Results: No irritation present at 24 or 72 hours.

Study Classification: Core Guideline Data.

Toxicity Category: IV-CAUTION

3

TECHNICAL

NAPTHYL ACETIC ACID

005377

FOR USE IN THE MANUFACTURE OF PLANT GROWTH REGULATORS

ACTIVE INGREDIENT:

1- NAPTHYL ACETIC ACID,..... MINIMUM 95.0%

INERT INGREDIENTS: ..... MINIMUM 5.0%

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

DANGER

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS & DOMESTIC ANIMALS

HARMFUL IF SWALLOWED. MAY CAUSE EYE DAMAGE, WEAR SAFETY GOGGLES WHEN HANDLING. AVOID CONTACT WITH SKIN AND EYES.

STATEMENT OF PRACTICAL TREATMENT

IN CASE OF EYE CONTACT FLOOD EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. 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 SKIN CONTACT, FLUSH WITH PLENTY OF SOAP AND WATER

STORAGE AND DISPOSAL

AVOID CONTACT WITH OTHER PESTICIDES, SEEDS, FERTILIZERS OR FEED STUFFS. DO NOT USE IN EQUIPMENT OR IN CONTAINERS IN WHICH YOU HAVE HANDLED OR WILL HANDLE OTHER AGRICULTURAL CHEMICALS UNLESS THOROUGHLY CLEANED.

PESTICIDE, SPRAY MIXTURE, OR RINSE WATER THAT CANNOT BE USED ACCORDING TO LABEL INSTRUCTIONS MUST BE DISPOSED OF ACCORDING TO APPLICABLE FEDERAL, STATE, OR LOCAL PROCEDURES.

COMPLETELY EMPTY LINER BY SHAKING AND TAPPING SIDES AND BOTTOM TO LOOSEN CLINGING PARTICLES. EMPTY RESIDUE INTO EQUIPMENT. THEN DISPOSE OF LINER IN A SANITARY LANDFILL OR BY INCINERATION IF ALLOWED BY STATE AND LOCAL AUTHORITIES. IF DRUM CANNOT BE REUSED, DISPOSE OF IN THE SAME MANNER.

FOR MANUFACTURING OF PLANT GROWTH REGULATORS ONLY.

NET CONTENTS

DISTRIBUTED BY:

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.
P.O. Box 12014, T.W. Alexander Drive, Research Triangle Park, NC 27709

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4