



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

002837

MEMORANDUM

Date: June 16, 1982

Subject: EPA Registration Number 677-308
Technical Chlorothalonil Fungicide

EPA Registration Number 677-283
Technical Daconil 2787 Fungicide

From: Deloris F. Graham *DFG 6/24/82*
FHB/TSS *E 6/24/82*

To: Henry Jacoby
Product Manager (21)

Applicant: Diamond Shamrock Corp.
Agricultural Chemicals Division
1100 Superior Avenue
Cleveland, OH 44114

Active Ingredient:
Chlorothalonil (tetrachloroisophthalonitrile).....96.0%
Inert Ingredients.....4.0%

Background:

Submitted an Acute Inhalation Study to support change in precautionary statements. Study conducted by Bio-Research Laboratories, Ltd. Data under accession number 247442. Alternate method of support.

Recommendation:

- (1) The appropriate toxicity category is II-WARNING for this Acute Inhalation Study.
- (2) Since the toxicity category is WARNING, the word poison in red and the skull and crossbones motif is not necessary.

Label:

- (1) No additional label comments.

185

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Review:

- (1) Acute Inhalation Toxicity Study: Bio-Research Laboratories, Ltd.,
DS-2787; Diamond Shamrock #475-5TX-80-0210-002; May 4, 1981, Lab. Report
#9451.

Procedure: Six groups consisting of 10M and 10F Sprague-Dawley rats were exposed for one hour to one of the following concentrations: 0.167, 0.233, 0.332, 0.548 mg/l and air control. One of the six groups was terminated due to problems with the generating equipment. Nominal concentrations were 0.220, 0.320, 0.443 and 0.795 mg/l. Particle size ranged from 3.8 to 5.0 microns. Chamber temperature ranged from 23.5 to 26.0°C while the relative humidity ranged from 46-78%. Observations were made during exposure, during the seven hour post treatment period, then twice daily for 14 days. Necropsy performed on all animals.

Results: At 0.167 mg/l, 1/10 M and 1/10 F died; at 0.223 mg/l, 8/10 M and 6/10 F died; at 0.332 mg/l, 9/10 M and 9/10 F died; at 3.05 mg/l, animals sacrificed immediately post treatment due to difficulties with generating equipment; at 0.548 mg/l, 10/10 M and 8/10 F died. Toxic signs included respiratory rales, nasal discharge and gasping.

Necropsy revealed pulmonary congestion, pulmonary edema, an increase in alveolar macrophages, hepatic vesiculation, bronchitis, tracheitis, rhinitis, bronchopneumonia, hepatic necrosis.

LC₅₀ for males was 0.220 mg/l with 95% confidence limits between 0.189 and 0.257 mg/l. LC₅₀ for females was 0.259 mg/l with 95% confidence limits between 0.193 and 0.347 mg/l. Combined male and female LC₅₀ was 0.225 mg/l with 95% confidence limits between 0.190 and 0.267 mg/l.

Study Classification: Core Guideline Data

Toxicity Category: II-WARNING

2

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ACCEPTED

APR 3 1979

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 677-308

Net Contents 50 Pounds/22.7 Kilograms



Diamond Shamrock

Technical Chlorothalonil Fungicide

Active Ingredient Chlorothalonil (trichloroisophthalonitrile) 96.0%
Inert Ingredients 4.0%
Total 100.0%

*Covered under U.S. Patent No. 3,290,353 and No. 3,331,735.

DANGER: Keep Out Of Reach Of Children
See side panel for additional precautionary statements

Diamond Shamrock Corporation
Agricultural Chemicals Division
Cleveland, Ohio 44114

EPA Reg. No. 677-308-AA EPA Est. No. 677-TX-1



Diamond Shamrock

Technical Chlorothalonil Fungicide

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Diamond Shamrock

Technical Chlorothalonil Fungicide

Precautionary Statements

Hazards to Humans and Domestic Animals

Danger

Corrosive, Causes Severe Eye Damage.

Do not get in eyes, wear goggles or eye shield when handling this product.

In case of contact with eyes, flush with plenty of water immediately for 15 minutes. Seek medical attention for eyes immediately.

Avoid contact with skin or clothing. Wash exposed areas of skin with soap and warm water after handling or using.

Do not take internally.

Avoid breathing dust.

Note: Technical Chlorothalonil Fungicide may produce temporary allergic side effects characterized by redness of the eyes, mild bronchial irritation and redness or rash on exposed skin areas. Persons having allergic reaction should contact a physician. Affected persons respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Environmental Hazards

This product is toxic to fish.
Keep out of lakes, streams or ponds.

Storage and Disposal

Storage—Do not contaminate water, food or feed by storage or disposal.

Store in a dry place.

Disposal—Pesticide or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies. Dispose of containers in an incinerator or landfill approved for pesticide containers or bury in a safe place.

Open dumping is prohibited.

Do not contaminate water by cleaning of equipment or disposal of wastes. Consult federal, state or local disposal authorities for approved alternative procedures such as limited open burning.

For Formulation Purposes Only

Notice of Warranty

Diamond Shamrock Corporation makes no warranty of merchantability, fitness for any purpose, or otherwise, express or implied, concerning this product or its use, which extend beyond the statements on this label.

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Precautionary Statements Hazards To Humans And Domestic Animals

Corrosive Causes Severe Eye Damage.
Do not let your eyes come in contact with the liquid. Wash eyes immediately with water for 15 minutes. Seek medical attention for further treatment.

Avoid Contact with Skin or Clothing. Wash exposed areas of skin with water. Wash contaminated clothing after handling or using.

Do not Inhale Vapors.

Avoid Contact with Skin or Clothing. Wash exposed areas of skin with water. Wash contaminated clothing after handling or using.

Do not Inhale Vapors.

Nite Technical Decant 2187 Fungicide may irritate
the eyes. Avoid contact with the eyes. If contact is made, wash eyes with water for 15 minutes. Seek medical attention for further treatment.

Avoid Contact with Skin or Clothing. Wash exposed areas of skin with water. Wash contaminated clothing after handling or using.

Do not Inhale Vapors.

Environmental Hazards

Storage and Disposal

Disposal—Disposal of equipment that cannot be used or repaired must be approved by the fire department and disposed of in a landfill. Equipment that is repaired must be placed in a safe place away from where it is likely to be a source of ignition in an incinerator or where it is likely to be used for paving, in containers or bury in a safe place.

Do not store—Do not store equipment.

Do not store—Do not store equipment for cleaning or disposal of wastes. Contractors must have local disposal authorities for equipment that is used for paving or other such as limited open burning.

[illegible]

Diamond Shamrock

Techni-278[®] Fungicide

Active ingredient (this collection (tetrahydrocannabinol))*	96.0%
Inert ingredients	4.0%
Total	100.0%

*Covered under U.S. Patent No. 3,290,353 and No. 3,331,735

DANGER: Keep Out Of Reach Of Children
See manufacturer's instructions for correct use and

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Cleveland, Ohio 44114

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EPA 801 NO 077-1X-1