UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: September 14, 1978

SUBJECT: Technical Chlorothalonil Fungicide EPA Reg.#677-308
Caswell#215B

FROM: William Dykstra, Ph.D
Toxicology Branch/HED

WMD 9/18/78

001065

TO: Eugene Wilson
Product Manager#21

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

Action Type: Change of signal word and precautionary labeling.

Recommendations:

1. The eye irritation test is acceptable as Core Minimum Data.

2. The label signal word is Danger on the basis of eye toxicity. The precautionary labeling should include "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 immediately flush with plenty of water for 15 minutes. Seek medical attention for eyes immediately." The remainder of the precautionary labeling is adequate.

Review:

1. Eye Irritation in the Albino Rabbit (IDRC#293-024, Oct. 30, 1973)

Test Material: Daconil Technical, Air Milled, 7948-95-3

0.1 gm of test material was instilled into the conjunctival sac of one eye of each six NZW rabbits (3M & 3F) with the untreated eye serving as a control. Examination and scoring were made at 1, 2, 3, 7 and 14 days. Fluorescein examination was made prior to compound administration and at 72 hours post-instillation.

Results: Corneal opacity, dendritic vascularization, bulge on the corneal surface and other signs of irritation were in evidence in 6/6 rabbits at 14 days.

Classification: Core Minimum Data TOX Category I: DANGER

1/3

EPA FORM 1320-6 (REV. 3-76)

Background Information:

Following is a brief summary listing of the numerous toxicological reviews conducted on the diversified toxicity submitted by the registrant to support the safety of his requested tolerances on food and feed: No studies were conducted at IBT.

acute rat oral LD_{50} (PP#1F1024)	> 10,000 mg/kg
acute dog oral LD_{50} (PP#1F1024)	> 5,000 mg/kg
acute rabbit dermal LD_{50} (PP#1F1024)	> 10,000 mg/kg
rabbit eye irritation (PP#1F1024)	transient irritation
acute rabbit inhalation LC_{50} (PP#1F1024)	> 4.7 mg/L
rabbit teratogenic (PP#9F0743)	negative at 62.5 mg/kg (highest fed level)
16 Week Dog Feeding	NEL < 250 ppm
4 Month Rat Feeding (#200-198)	NEL < 250 ppm
2 Year Dog Feeding	NEL < 0.15%
2 Year Dog Feeding (#200-206)	NEL 60 ppm
2 Year Rat Feeding (#200-154)	NEL < 0.5%
18 Month Rat Feeding (#200-175)	NEL < 0.05%
2 Year Rat Feeding (#200-205)	NEL 60 ppm
3 Generation Rat Reproduction (#200-155)	NEL < 0.5%
3 Generation Rat Reproduction (#200-150)	NEL 15,000 ppm (reproduction)
	NEL 1,500 ppm (lactation)

Metabolite Data (DAC-3701-14-hydroxy-2,5,6-trichloroisophthalonitrile)

Acute Rat Oral LD_{50} (S-D Rats)	male 422 mg/kg female 242 mg/kg
Acute Dog Oral LD_{50} PP#2F1230 (293-021)	100 mg/kg
Acute Rat Oral LD_{50} PP#2F1230 (293-004)	332 mg/kg
14 Month Rat Feeding PP#2F1230 (#24-051)	NEL 100 ppm
90 Day Dog Feeding PP#2F1230 (#24-052)	NEL < 50 ppm
3 Generation Rat Reproduction PP#2F1230	NEL Not established
Host-Mediated Assay PP#6F1799 (99% pure):	negative
Invivo Cytogenetic In Mice PP#6F1799 (99% pure):	negative
Mice Dominant Lethal Test PP6#1799 (99% pure):	a significant increase in early deaths at week 3 of mating (spermatid stage) was noted at 6.5 mg/kg/day
Mice Dominant Lethal Test PP#6F1799 (99% pure):	incomplete data provided.
Rat Dominant Lethal Test PP#6F1799:	negative at 8 mg/kg (5 daily oral doses) and at a single dose of 8 mg/kg (99% pur (Lab #24-101).

Rabbit Teratology (Lab#8180-70) (PP#6F1799): negative at 5.0 mg/kg/day

73 Week Rat Feeding (Lab #8180-032a) (PP#1799) (99% pure): NEL > 200 ppm study doses not satisfy the oncogenic protocol due to length of study.

Three Generation Rat Reproduction (PP#6F1799) (99% pure): study is considered invalid due to numerous conflicting data, poor reporting, missing data and etc. Dr. Budny of Diamond Shamrock Chemical Co. agreed to this classification.

R.E.W. 3/31/78