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

MEMORANDUM

Date: February 5, 1981

Subject: Treflan MTF
EPA Reg. No. 1471-116

From: Sherell A. Sterling
FHB/TSS

To: Richard Mountfort
Product Manager (23)

Applicant: Elanco Products Co.
A Division of Eli Lilly & Co.
P.O. Box 1750
Indianapolis, IN 46206

Active Ingredient:	
Trifluralin	41.2%
Inert Ingredients	58.8%

Background

As requested under conditional registration, an Acute Inhalation study was submitted. This study was conducted by the Lilly Research Laboratories of Eli Lilly and Company, Greenfield, Indiana. A previous review (Sterling, 8/18/80) found the Acute Oral, Acute Dermal, Eye and Skin Irritation studies to be acceptable. The method of support is "cite-all."

Recommendations:

1. The Acute Inhalation data are considered adequate and acceptable for conditional registration purposes.

2. Since the Acute Oral, Acute Dermal, Skin and Eye Irritation studies were found acceptable in a previous review, FHB/TSS has no objection to the conditional registration of this product based on the acute studies.

3. No major labeling revisions are necessary except for those provided in the previous review. However, we suggest the addition of the following statement to the "Hazards to Humans and Domestic Animals" section:

"Harmful if inhaled. Avoid breathing vapors or spray mist."

Review:

1. The Acute Inhalation Toxicity of Treflan MTF, a Formulation of Trifluralin, in the Fischer 344 Rat; Lilly Research #R-H-95-80; November 1980; Acc. No 243937.

Procedure: A group of 10^M (187 ± 5.6g) and 10^F (137 ± 5.9g) each were exposed to an atmosphere of Treflan MTF for one hour. Exposure was "nose only." The exposure chamber was a .41 ℓ cylindrical plexiglas exposure chamber with a dynamic airflow of 30 ℓ/minute. Particle size distribution was accomplished with sampling performed by a Sierra Model 218K Ambient Cascade Impactor. Animals were observed for 14 days postexposure. Report does not indicate that necropsies were performed.

Results: The nominal concentration was 20.7 mg/l of air; the actual concentration was 2.44 mg/l of air. The mass median equivalent aerodynamic diameter was 5.40 μm with a geometric standard deviation of 2.54. Body weights increased over the 14 days. No signs of toxicity; no deaths were observed.

The LC50 was greater than 2.44 mg/l with a standard deviation of 0.39 mg/l.

Study Classification: Core Minimum Data. Actual concentration should be at least 5 mg/l for 4 hours.

Toxicity Category: III-CAUTION
Data are sufficient to show that toxicity is no worse than category III.