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

MEMORANDUM JAN 7 1983

TO: Jay Ellenberger (12)
Registration Division (TS-769)

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

THRU: Orville E. Paynter, Ph.D.
Chief, Toxicology Branch
Hazard Evaluation Division (TS-769)

SUBJECT: Evaluation of Validated IBT Study No. 8531~~1~~-08337: 60
Ninety-Day Oral Feeding Study of SN 49537 (Thidiazuron)
in Rats. Tox. Chem. No. 659A

Review of Data:

Ninety-Day Oral, Rats. Conducted at IBT (IBT No. 8531~~1~~-08337), 60
and submitted by Nor-Am Agricultural Products on May 27, 1976.

(This study was validated by Dr. Henry Spencer of Toxicology Branch on July 3, 1979 and classified as "Valid". It was revalidated by Dynamac Corporation on December 31, 1982 and classified as "Supplementary Data" on the basis of the following deficiencies:

1) It could not be verified that all required tissues were examined histologically.

2) It could not be verified that animals were examined grossly at final sacrifice.

3) The T-I diet contained 40 ppm rather than the reported 60 ppm and the availability of test diet could be verified for only 9 of the 13 study weeks.

4) The conduct of examinations for signs of systemic toxicity could not be verified.)

Charles River albino rats were exposed to technical thidiazuron at dose levels of 0, 40, 200 and 600 ppm in the diet for a period of at least 9 weeks (15 males and 15 females per dose level). Food consumption was measured for 10 animals of each sex at each dose level on a weekly basis. All animals were weighed on a weekly basis. Blood and urine samples were collected after 45 and 84 days on test and were analyzed for (blood) total leukocyte count, erythrocyte count, Hb, Ht, differential leukocyte count, MCV, MCH, MCMC, blood glucose, BUN, SAP, SGPT and (urine) glucose, albumin, pH, specific gravitiy and microscopic elements. After 90 days, all surviving rats were rendered unconscious by CO_2 exposure and exsanguinated. Selected tissues were examined from 10 animals per sex of the control and T-III groups.

Results:

No mortalities were observed in any group during the course of the study. Neither body weight nor food consumption were significantly affected by treatment. Hematology, urinalysis and clinical chemistry parameters were also not affected by treatment. The following organ weights of high dose animals were significantly different than controls: gonads of females (significantly heavier, $p < .01$), male heart (significantly lighter, $p \leq .05$), and male spleen (significantly lighter, $p < .05$). No histological lesions were observed which could be associated with the observed organ weight differences, or , more generally, with exposure to thidiazuron; however, a thorough histological examination could not be verified by the raw data.

Core Classification: Supplementary Data. Based on organ weight differences noted at the high dose level (600 ppm), the NOEL may be 200 ppm. However, due to deficiencies noted during study validation, a NOEL can not be firmly established from this study.

Gary J. Burin, Toxicologist
Toxicology Branch
Hazard Evaluation Division (TS-769)

TS-769:th:TOX/HEDGJBurin:1-5-83:card 1

2