

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF PESTICIDE REGULATION
MEDICAL TOXICOLOGY BRANCH

SUMMARY OF TOXICOLOGY DATA
MUSCALURE [(Z)-9-Tricosene]

Chemical Code # 001858, DPN # 50663
SB 950 # 497
Original date: 3/07/02; revised April 12, 2005

I. DATA GAP STATUS

Chronic toxicity, rat:	Data gap, no study submitted.
Chronic toxicity, dog:	Data gap, no study submitted
Oncogenicity, rat:	Data gap, no study submitted
Oncogenicity, mouse:	Data gap, no study submitted.
Reproduction, rat:	Data gap, no study submitted.
Teratology, rat:	Data gap, inadequate study, no adverse effect indicated.
Teratology, rabbit:	Data gap, no study submitted.
Gene mutation:	Data gap, inadequate study, no adverse effect indicated
Chromosome effects:	Data gap, no study submitted.
DNA damage:	Data gap, no study submitted
Neurotoxicity:	Not required at this time

Toxicology one-liners are attached.
All record numbers through 045669 were examined.
** indicates an acceptable study.

Bold face indicates a possible adverse effect.

File name: T050412

Original: Kishiyama and Gee, 3/7/02; revised by Gee, 4/12/05

This active ingredient is a sex-attractant pheromone for house and other fly species and considered a biochemical. It was the subject of a "Reregistration Eligibility Document", US EPA, September, 1994. In this document, muscalure is considered as non-food use based on the labels.

Note: On May 20, 2003, the Office of Environmental Health Hazard Assessment (OEHHA) concurred with the Department of Pesticide Regulation that the mandatory health effects under SB950 may be waived at this time based the non-toxic mode of action and the registered products. (Gee, 4/12/05)

II. TOXICOLOGY ONE-LINERS AND CONCLUSIONS

These pages contain summaries only. Individual worksheets may contain additional effects.

COMBINED, RAT

No study submitted.

CHRONIC TOXICITY, RAT

No study submitted.

CHRONIC TOXICITY, DOG

No study submitted.

ONCOGENICITY, RAT

No study submitted.

ONCOGENICITY, MOUSE

No study submitted.

REPRODUCTION, RAT

No study submitted.

TERATOLOGY, RAT

50663 - 001 036943 Beliles, R. P. and S. L. Makris. "Teratology Study in Rats Z-9-Tricosene Technical." (Litton Bionetics, Inc., LBI Project No. 20876, March 1978.) Z-9-Tricosene Technical (63.1%, #046113 (16D)) was administered by gavage at a dose of 5 g/kg to 20 female [CRL:COBS CD (SD) BR] rats/group during gestation days 6 through 15. Ten received corn oil. There were 10 and 17 litters available for control and treated groups, respectively. No Z-9-Tricosene related effects reported for female adults or fetal development and growth. UNACCEPTABLE (no test article stability or composition of the remaining 37%, no QA and GLP sign-offs, inadequate number of litters for evaluation). Not upgradeable. (Kishiyama and Gee, 3/5/02).

TERATOLOGY, RABBIT

No study submitted.

GENE MUTATION

50663 - 002 045669 Riccio, E. S. "*In Vitro* Microbiological Mutagenicity Assays of Zoecon Industries' Muscalure." (SRI International, Menlo Park, SRI Project LSC-1720-210, SRI Study No. 387-86-020, May 1986.) Muscalure (batch 0072264, purity not stated) was evaluated for mutagenicity at concentrations of 0 (acetone), 10, 50, 100, 500, 1000, and 5000 µg/plate, with and without metabolic activation (S9 Mix) using *Salmonella typhimurium* strains, TA 1535, TA1537, TA1538, TA 98, and TA100. A precipitate formed at 5000 µg/plate. There were duplicate plates and two trials, one with 4% S9 and one with 10% S9 (second trial). Muscalure with and without metabolic activation under study conditions did not increase the number of revertants. UNACCEPTABLE (test article purity). Possibly upgradeable with no adverse effect. (Kishiyama and Gee, 3/5/02)

CHROMOSOME EFFECTS

No study submitted.

DNA DAMAGE

No study submitted.

NEUROTOXICITY

Not required at this time.