

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: August 15, 1978

SUBJECT: Toxicity of Dog and Cat Flea Collars on Exposed Animals and Humans; Inquiry from Florida Student

FROM: Roland A. Gessert, D.V.M.; Toxicology Branch

TO: Mr. Dennis McLane

The inquiry requests information concerning toxic reactions and cholinesterase alterations associated with flea collar use and misuse on exposed animals and humans. I am enclosing selected published papers on DDVP (dichlorvos, or Vapona), as follows:

Human Inhalation Studies

Evaluation of Human Health Hazards on Use of Dichlorvos (DDVP), Especially in Resin Strips

Effects of DDVP Aerosols on Blood Cholinesterase of Fogging Machine Operators

Chronic Toxicity Studies with DDVP in Dogs and Rats, Including Observations on Rat Reproduction

Teratogenic Studies with Dichlorvos in Rabbits

Exposure of Newborn Babies to Vapona Insecticide

Some Toxicity Aspects of Dichlorvos Flea Collars in Cats

Long Term Exposure of Factory Workers to DDVP

Evaluation of Feline Dichlorvos Flea Collar

Assorted published abstracts

Health and Safety Problems Involved in Use of Vapona as a Domestic Insecticide

Metabolism of  $^{14}\text{C}$ -Vapona in Rats After Administration by Oral and Inhalation Routes

Bibliographies

Flea collars currently marketed contain one or more of the following: DDVP, Naled (dibrom), Sevin (carbaryl), or Dursban (chlorpyrifos). Considerations in approval of the collars from the safety standpoint include the above considerations, and including safety to the pet and to children handling the pet and collar.

The predominant toxicity observed with the collars is dermatitis on the neck of the cat or dog; the dermatitis frequently is instigated or magnified by the collar being applied too tightly. Measureable cholinesterase inhibition may occur, especially in cats, but generally is of no serious consequence except in cats wearing a dog collar; the user should follow directions, which include cutting off the excess length of the collar, and not using a dog collar on cats.

Other signs of toxicity often attributed to the collar frequently are due to other, unrelated factors.

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