

Office of Environmental Health Hazard Assessment



Linda S. Adams
Secretary of Environmental Protection

Joan E. Denton, Ph.D., Director

Headquarters • 1001 I Street • Sacramento, California 95814

Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010

Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Arnold Schwarzenegger
Governor

MEMORANDUM

TO: Allan Hirsch
Chief Deputy Director

VIA: George V. Alexeeff, Ph.D., D.A.B.T.
Deputy Director for Scientific Affairs

Anna M. Fan, Ph.D., Chief
Pesticide and Environmental Toxicology Branch

Robert A. Howd, Ph.D., Chief
Water Toxicology Section
Pesticide and Environmental Toxicology Branch

FROM: Richard Sedman, Ph.D., Staff Toxicologist
Water Toxicology Section
Pesticide and Environmental Toxicology Branch

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SUBJECT: UPDATE OF PUBLIC HEALTH GOAL - ENDRIN

Under the Calderon-Sher California Safe Drinking Water Act of 1996, the Office of Environmental Health Hazard Assessment (OEHHA) develops public health goals (PHGs) for regulated chemicals in drinking water and reviews and updates the risk assessments every five years (Health and Safety Code Section 116365(e)(1)). This memorandum represents an update of the literature review and evaluation for the existing PHG for endrin (OEHHA, 1999). Our re-evaluation supports the previous PHG derivation in 1999, and no new data would justify a significant change to the document.

Summary of review

The Public Health Goal (PHG) of 1.8 ppb for endrin was developed by OEHHA and published in December 1999. Endrin is an insecticide, rodenticide and avicide which has been

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The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

banned from sale and distribution since 1986. Endrin also is relatively highly toxic to humans and experimental animals. The PHG is based on a No Observed Adverse Effect Level of 1.0 ppm of endrin administered in feed in a dog study with the critical effect being increased seizures and liver pathology. The PHG is essentially identical to the U.S. Environmental Protection Agency's Maximum Contaminant Level (MCL) of 2 ppb developed in 1991; the difference lies only in the rounding of the final value. The California MCL is also 2 ppb, established in September 1994. There were no detections of endrin in public drinking water supplies reported by the California Department of Public Health in recent analyses (1984-2001).

A few new studies were identified (see below). Most of these studies describe residual levels of endrin in sediments, fish, breast milk or adipose tissue. Other studies investigated effects in cell cultures or in *in vitro* bioassays. A few studies investigated possible mechanisms of action of endrin and other pesticides. No new studies were identified that provided new toxicity information that would be useful in revising the PHG for endrin. The study of Jolley and coworkers (1969) remains the study of choice as the basis for the PHG.

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