

California OEHHA Report on 2,4-D in drinking water

Source Document

<http://www.oehha.ca.gov/water/phg/pdf/24dphg010209.pdf>

OEHHA

The California Office of Environmental Health Hazard Assessment (OEHHA) is the lead state agency for the assessment of health risks posed by environmental contaminants. OEHHA's mission is to protect human health and the environment through scientific evaluation of risks posed by hazardous substances. The Office is one of five state departments within the California Environmental Protection Agency.

Synopsis

In 8,408 routine drinking water samples taken by the state of California between 1984 and 2001, OEHHA found that none of them contained 2,4-D. As part of their mandate, OEHHA has updated its public health goals: the maximum acceptable level of a foreign substance in drinking water. OEHHA considered extensive toxicological and epidemiological data on 2,4-D, as well as data on exposure and water consumption, and set the public health goal at 20 parts per billion.

This carefully calculated allowance is based on a number of factors. The no observable adverse effects level (NOAEL) of 2,4-D is 5 milligrams per kilogram of body weight. The NOAEL is determined from animal testing; it is the highest dose test animals were fed without showing any negative side effects. When calculating the allowance, the OEHHA used safety factor of 1000, meaning they wanted to ensure that humans were never exposed to more than 1/1000th of the NOAEL of 2,4-D, or 0.005 milligrams per kilogram of body weight. This safety factor is ten times greater than the OEHHA's previous standard of 100.

Based on extensive data, the OEHHA calculated that drinking water would constitute no more than 20% of any potential exposure to 2,4-D. The average person drinks 44ml of water per kilogram of body weight every day, according to data from the US EPA. The results of OEHHA's calculations showed that 20 parts per billion of 2,4-D in drinking water would result in the average person consuming less than 1/1000th of the NOAEL.

The source document may be found below and also at the following link.

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