



Gavin Newsom, Governor
Jared Blumenfeld, Secretary for Environmental Protection
Lauren Zeise, Ph.D., Director

MEMORANDUM

TO: Darrin Polhemus
Deputy Director, Division of Drinking Water
State Water Resources Control Board

FROM: Lauren Zeise, Ph.D. *Lauren Zeise*
Director Lauren Zeise (Mar 17, 2022 14:03 PDT)

DATE: March 17, 2022

SUBJECT: NOTIFICATION LEVEL RECOMMENDATION FOR
PERFLUOROHEXANE SULFONIC ACID (PFHxS) IN DRINKING WATER

The Office of Environmental Health Hazard Assessment (OEHHA) is recommending that the State Water Resources Control Board establish the notification level (NL) for perfluorohexane sulfonic acid (PFHxS) at a drinking water concentration of 2 parts per trillion (ppt), equivalent to 2 nanograms per liter (ng/L), or at the lowest level at which the chemical can be reliably detected in drinking water using available and appropriate technologies.

The attached technical support document reflects OEHHA's review of the human and animal toxicity studies identified from the open literature. There were insufficient data from animal studies on PFHxS to evaluate its potential carcinogenicity. OEHHA did not identify any human studies that could be used as the basis for development of the NL recommendation.

Three peer-reviewed scientific studies supported thyroid, liver, and developmental toxicity as the most sensitive effects for the derivation of the NL recommendation.^{1,2,3} The NL recommendation is based on decreased thyroid hormone levels observed in rats in the peer-reviewed study by the National Toxicology Program (NTP, 2019).

¹ NTP (2019): <https://cebs.niehs.nih.gov/cebs/publication/TOX-96>

² Chang et al. (2018): <https://pubmed.ncbi.nlm.nih.gov/29694846/>

³ Butenhoff et al. (2009):

<https://www.sciencedirect.com/science/article/abs/pii/S0890623809000173?via%0890623809000173Dihub>

Mr. Darrin Polhemus

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OEHHA will also post on its website⁴ the technical support document for this NL recommendation. Links to access the candidate critical studies can be found in the references section of the document as well as in the footnotes of this memorandum.

cc: Eileen Sobeck
Executive Director
State Water Resources Control Board

⁴ <https://oehha.ca.gov/water/notification-levels-chemicals-drinking-water>