

**CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT  
SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986  
(PROPOSITION 65)**

**NOTICE OF INTENT TO LIST BY THE AUTHORITATIVE BODIES MECHANISM:  
PERFLUOROHEXANOIC ACID (PFHxA) AND RELATED SALTS**

**OCTOBER 30, 2026**

The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) intends to list *perfluorohexanoic acid (PFHxA) and related salts* as known to the state to cause reproductive toxicity under the Safe Drinking Water and Toxic Enforcement Act of 1986, codified in Health & Safety Code section 25249.5 *et seq.*, otherwise known as Proposition 65.

As stated in US EPA (2023), *related salts* includes "salts of PFHxA, including ammonium perfluorohexanoate (PFHxA-NH<sub>4</sub>, CASRN 21615-47-4), and sodium perfluorohexanoate (PFHxA-NA, CASRN 2923-26-4), and other nonmetal and alkali metal salts of PFHxA that would be expected to fully dissociate in aqueous solutions of pH ranging from 4–9 (e.g., in the human body) and not release other moieties that would cause toxicity independent of PFHxA." (Executive Summary, Pg. xiii)

This action is being proposed under the "Authoritative Bodies" listing mechanism (Health & Safety Code section 25249.8(b)) described below. OEHHA has determined that *PFHxA and related salts* meet the criteria for listing for reproductive toxicity, based on the developmental endpoint, by this mechanism. *PFHxA and related salts* are members of a large group of chemicals known as per- and polyfluoroalkyl substances (PFAS), which have widespread use in consumer products and industrial applications due to their heat-, oil-, stain-, and water-resistant properties (US EPA, 2023). PFHxA is a metabolite and degradation product of fluorotelomer-based chemicals, including 6:2 fluorotelomer alcohol (FTOH).

**Background on listing via the Authoritative Bodies mechanism:** A chemical must be listed under the Proposition 65 regulations when two conditions are met:

- 1) An authoritative body formally identifies the chemical as causing reproductive toxicity pursuant to Cal. Code Regs., tit 27, section 25306(d).
- 2) The evidence considered by the authoritative body meets the sufficiency criteria contained in Cal. Code Regs., tit 27, section 25306(g).

However, the chemical is not listed if scientifically valid data which were not considered by the authoritative body clearly establish that the sufficiency of evidence criteria were not met (Cal. Code Regs., tit. 27, section 25306(h)).

The US Environmental Protection Agency (US EPA) is one of several institutions designated as authoritative for the identification of chemicals as causing reproductive toxicity (Cal. Code Regs., tit. 27, section 25306(l)).

OEHHA is the lead agency for Proposition 65 implementation. After an authoritative body has made a determination about a chemical, OEHHA evaluates whether listing under Proposition 65 is required using the criteria contained in Cal. Code Regs., tit. 27, section 25306.

**OEHHA's determination:** *PFHxA and related salts* meet the criteria for listing as known to the state to cause reproductive toxicity under Proposition 65, based on findings of the US EPA (2023), as outlined below.

**Formal identification and sufficiency of evidence:**

OEHHA is relying on:

- The statement in the US EPA's Toxicological Review of Perfluorohexanoic Acid [PFHxA, CASRN 307-24-4] and Related Salts (US EPA, 2023) that "This assessment applies to PFHxA as well as salts of PFHxA, including ammonium perfluorohexanoate (PFHxA-NH<sub>4</sub>, CASRN 21615-47-4), and sodium perfluorohexanoate (PFHxA-NA, CASRN 2923-26-4), and other nonmetal and alkali metal salts of PFHxA that would be expected to fully dissociate in aqueous solutions of pH ranging from 4–9 (e.g., in the human body) and not release other moieties that would cause toxicity independent of PFHxA." (Executive Summary, Pg. xiii)
- US EPA's conclusion that "PFHxA likely causes developmental effects in humans".
- US EPA's establishment of chronic and subchronic oral reference doses (RfDs) for PFHxA based on developmental toxicity (decreased offspring body weight on postnatal day [PND] 0).

The findings and actions in this document satisfy the formal identification and sufficiency of evidence criteria in the Proposition 65 regulations for listing.

Pertinent statements and information in US EPA (2023) documenting the Agency's conclusions about developmental toxicity include the following:

- “Overall, the currently available **evidence indicates** that PFHxA likely causes developmental effects in humans given sufficient exposure conditions (see Table 3-16) ... This judgment is based primarily on several *high* confidence, gestational exposure experiments in mice (and supportive findings in rats), with effects occurring after oral PFHxA exposure at  $\geq 100$  mg/kg-day. These findings are interpreted as relevant to humans in the absence of evidence to the contrary. This assumption is based on Guidelines for Developmental Toxicity Risk Assessment (US EPA, 1991).” [emphasis in original] (Pg. 3-51)
- “The data from the animal toxicological studies that support identifying developmental effects as a potential human hazard included effects from three studies that reported consistent, dose-responsive, and concerning effects of PFHxA exposure on offspring body weights and mortality. Delayed eye opening was also reported. The observed developmental effects following PFHxA exposure are similar to other PFAS, including PFBS (U.S. EPA, 2021b) and PFBA (U.S. EPA, 2022b), providing additional support for these specific findings. Effects on offspring body weight were observed in two species (rats and mice) exposed to different PFHxA salts (sodium and ammonium) using different exposure scenarios, although effects on mortality were observed only in the mouse study. Low birth weight is associated with lasting adverse effects on health, with increased risk for disease and reductions in lifespan in humans (Thompson and Regnault, 2011; Kajantie et al., 2005; Barker, 2004) and delays in eye opening can impact normal development of the visual system (Espinosa and Stryker, 2012; Wiesel, 1982).” (Pg. 4-2)
- In deriving the chronic oral RfD for PFHxA, the US EPA stated: “From the identified hazards of potential concern (i.e., endocrine, hepatic, hematopoietic, and developmental toxicity), decreased offspring body weight in neonatal rats (Loveless et al., 2009) was selected as the basis for the RfD of  $5 \times 10^{-4}$  mg/kg-day.” (See Table ES-1, Pg. xv, which indicates the basis for the RfD is “Decreased F<sub>1</sub> body weight at PND 0 in rats”; and Executive Summary, Pg. xvi.)
- In deriving the subchronic oral RfD for PFHxA, the US EPA stated: “In addition to providing RfDs for chronic oral exposures in multiple systems, a less-than-lifetime subchronic RfD was derived for PFHxA. The same study and endpoint (Loveless et al., 2009) and decreased F<sub>1</sub> body weight and value was selected as the basis for the subchronic RfD of  $5 \times 10^{-4}$  mg/kg-day (see Table ES-1).” (See Table ES-1, Pg xv, which indicates the basis for the subchronic RfD is “Decreased F<sub>1</sub> body weight at PND 0 in rats”; and Executive Summary, Pg. xvi.)

OEHHA has reviewed the studies or study descriptions cited in US EPA (2023) as

providing the basis for the Agency's conclusions regarding the reproductive toxicity (developmental endpoint) relative to the criteria in Cal Code Regs., tit. 27, section 25306(g). The criteria for listing *PFHxA and related salts* through the authoritative bodies mechanism as causing reproductive toxicity (developmental endpoint) have been met.

**Opportunity for Comment:** OEHHA is providing this opportunity to comment as to whether this chemical meets the criteria set forth in the Proposition 65 regulations for authoritative bodies listings.

### **Submission of Comments**

All written comments must be submitted to OEHHA by electronic submission, mail, or hand-delivery, by **Monday, November 30, 2026**. OEHHA strongly recommends that comments be submitted electronically through our website at <https://oehha.ca.gov/comments>, rather than in paper form. Alternatively, comments can be submitted in paper form, either by mail or delivered in person.

Mailed submission via the United States Postal Service:

Attention: Kiana Vaghefi  
Office of Environmental Health Hazard Assessment  
P.O. Box 4010  
Sacramento, California 95812-4010

In-person delivery submission:

Attention: Kiana Vaghefi  
Office of Environmental Health Hazard Assessment  
1001 I Street  
Sacramento, California 95814

OEHHA encourages all commenters to submit their comments in a format compliant with Section 508 of the federal Rehabilitation Act, Web Content Accessibility Guidelines 2.1 (<https://www.w3.org/WAI/standards-guidelines/wcag>) and California Government Code sections 7405 and 11135, so that they can be read using screen reader technology.

Comments received during the public comment period will be posted on the OEHHA website after the close of the comment period.

OEHHA is subject to the California Public Records Act and other laws that require the release of certain information upon request. If you provide comments, please be aware that your name, address, and e-mail may be available to third parties.

If you have any questions, please contact Kiana Vaghefi at [Kiana.Vaghefi@oehha.ca.gov](mailto:Kiana.Vaghefi@oehha.ca.gov) or at 916-322-1268.

## **Reference**

US EPA (US Environmental Protection Agency). 2023. IRIS Toxicological Review of Perfluorohexanoic Acid [PFHxA, CASRN 307-24-4] and Related Salts (EPA/635/R-23/027Fa) Washington, DC.  
<https://iris.epa.gov/static/pdfs/0704tr.pdf>