



PERFLUOROOCTANOIC ACID (PFOA)
AND PERFLUOROOCTANESULFONIC
ACID (PFOS)

VOLUME 135

This publication represents the views and expert opinions of an IARC Working Group on the Identification of Carcinogenic Hazards to Humans, which met in Lyon, France, 7–14 November 2023

LYON, FRANCE - 2025

IARC MONOGRAPHS
ON THE IDENTIFICATION
OF CARCINOGENIC HAZARDS
TO HUMANS

ANNEX 6. SUPPLEMENTARY MATERIAL FOR SECTION 4.3, EVALUATION OF HIGH-THROUGHPUT IN VITRO TOXICITY SCREENING DATA

These supplementary online-only tables (available from: <https://www.publications.iarc.who.int/636>) contain summaries of the findings (including the assay name, the corresponding key characteristic, the resulting “hit calls” both positive and negative, and any reported caution flags) for those chemicals evaluated in the present volume that have been tested in high-throughput screening assays performed by the United States Environmental Protection Agency (US EPA) and the United States National Institutes of Health. The results were generated by the Working Group using the software “kc-hits” (key characteristics of carcinogens – high-throughput screening discovery tool) available from <https://gitlab.com/i1650/kc-hits.git> (Reisfeld et al., 2022), using the US EPA Toxicology in the 21st Century (Tox21) and Toxicity Forecaster (ToxCast) assay data and the curated mapping of key characteristics to assays available at the time of the evaluations performed for *IARC Monographs* Volume 135. Data were available for perfluorooctanoic acid (PFOA), ammonium perfluorooctanoate (APFO), perfluorooctanesulfonic acid (PFOS), and potassium perfluorooctanesulfonate.

Please report any errors to imo@iarc.who.int.

1. Perfluorooctanoic acid (PFOA): ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
2. Ammonium perfluorooctanoate (APFO): ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
3. Perfluorooctanesulfonic acid (PFOS): ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
4. Potassium perfluorooctanesulfonate: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens

Reference

Reisfeld B, de Conti A, El Ghissassi F, Benbrahim-Tallaa L, Gwinn W, Grosse Y, et al. (2022). kc-hits: a tool to aid in the evaluation and classification of chemical carcinogens. *Bioinformatics*. 38(10):2961–2. doi:[10.1093/bioinformatics/btac189](https://doi.org/10.1093/bioinformatics/btac189) PMID:[35561175](https://pubmed.ncbi.nlm.nih.gov/35561175/)