

# **New Chemical Review of Alternatives for PFOA and Related Chemicals in U.S.**

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# Overview

Review of Alternatives: Background

Strategy: Integrated Approach

Data Needs on Alternatives

Results to Date

Summary

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# Review of Alternatives: Background

- 2010/15 PFOA Stewardship Program
  - Major driver for companies to reduce residuals in products and to switch from C8 products to safer alternatives
- EPA is reviewing substitutes for PFOA, PFOS, and other long-chain perfluorinated substances (LCPFCs) as part of its review process for new chemicals under EPA's New Chemicals Program
- Over 150 alternatives of various types have been received and reviewed by EPA
  - Many products are perfluorinated with C4 or C6 perfluoroalkyl constituents
  - Companies prefer these as drop-in replacements



# Strategy: Integrated Approach

- To enable EPA to understand the risks of the new alternatives, EPA believes it needs an authoritative understanding of hazards and fate:
  - Health and metabolism
  - Ecotoxicity
  - Environmental fate
  - Half-life in animals
  - Human biomonitoring or epidemiological data
- EPA believes a strategic integrated approach to testing is needed to speed development of the necessary data
- Accordingly, EPA has developed a matrix of data needs for each type of alternative
  - Matrix is being filled by testing required in Consent Orders with costs being distributed across companies based on market share and the value of products



# Results to Date

- Data on the C4 sulfonate and the C6 acid have shown different pharmacokinetics (shorter half-life) and lower toxicity than PFOA and PFOS
- EPA has issued Consent Orders that require testing which, taken together, will characterize the effects of the substances and their degradants
- For fate data, EPA has and will continue to categorize chemicals based on polymer content and the likelihood that chemical composition will affect degradation (e.g., solubility and reactivity)
- EPA expects that the value of all testing will be more than \$30 million



## Summary

- Great example of interplay between new and existing chemicals
  - Concerns with existing chemicals led to substitution by alternative chemicals through the 2010/15 PFOA Stewardship Program
- Integrated testing approach made it easier and faster to fill the data needs
  - U.S. EPA is getting data from multi-year, multi-million tests which one company alone would not be able to provide
- A comprehensive program, which considers both existing and new chemicals, greatly facilitates the transition from problem chemicals to safer alternatives
- International cooperation on developing safer alternatives



# Information Resources

- Existing Chemicals
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  - Toni Krasnic; 202-564-0984; [krasnic.toni@epa.gov](mailto:krasnic.toni@epa.gov)
- New Chemicals
  - New Chemical Review of Alternatives for PFOA and Related Chemicals is available at <http://epa.gov/oppt/pfoa/pubs/altnewchems.htm>
  - Rose Allison; 202-564-8970; [allison.rose@epa.gov](mailto:allison.rose@epa.gov)
- International
  - <http://www.oecd.org/ehs/pfc/informationonshort-chainpfcsotheralternatives.htm>