



SAFER
CONSUMER
PRODUCTS

Public Workshop

on DTSC's Proposal to List Treatments
Containing Perfluoroalkyl or
Polyfluoroalkyl Substances (PFASs)
for Use on Converted Textiles or Leathers

December 9, 2019

Facilitator: Asha Setty, Public Participation Specialist



CalEPA



Department of Toxic Substances Control





**Webcast attendees,
submit your comments to:**
SaferConsumerProducts@dtsc.ca.gov



Department of Toxic Substances Control

2018-2020 Work Plan product categories



The Safer Consumer Products Framework



A Priority Product is a product-chemical combination that meets these criteria:



- There are potential **exposures** to a Candidate Chemical in the product

AND

- One or more exposures have the potential to contribute to or cause **significant or widespread adverse impacts**





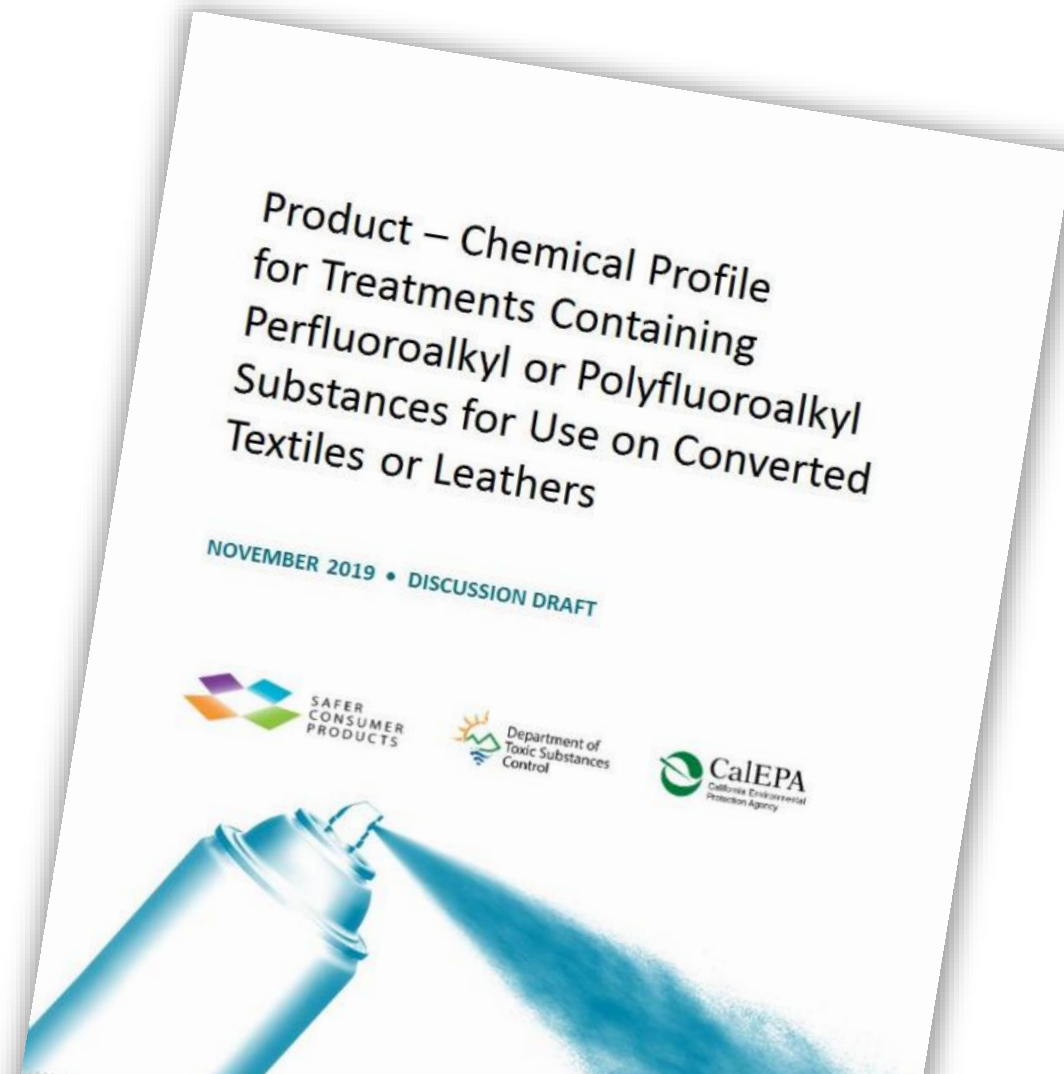
Summary of DTSC's findings

Simona Bălan, Senior Environmental Scientist Simona.Balan@dtsc.ca.gov



Department of Toxic Substances Control

The technical basis for this proposal



Definitions and scope

Potential for exposure

Potential adverse impacts

Potential alternatives



Scope of product: Treatments for use on converted textiles or leathers

Any product containing PFASs placed into commerce in California that may be marketed or sold for the purpose of:

- eliminating dirt or stains from converted textiles or leathers such as carpets, rugs, clothing, shoes, upholstery; or
- repelling stains, dirt, oil, or water from converted textiles or leathers such as carpets, rugs, clothing, shoes, upholstery.



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Scope of product: Treatments for use on converted textiles or leathers

Includes the following:

- **cleaner**: a product marketed or sold for the purpose of eliminating dirt or stains;
- **protectant**: a product marketed or sold to protect the surface from soiling when in contact with dirt or other impurities, or to reduce liquid absorption;
- **spot remover**: a product marketed or sold to clean localized areas, or to remove localized spots or stains; and
- **water proofer or water repellant**: a product marketed or sold to repel water.

Definitions and scope	Potential for exposure	Potential adverse impacts	Potential alternatives
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Scope of product: Treatments for use on converted textiles or leathers

Does not include products marketed or sold exclusively for use at industrial facilities during the process of carpet, rug, clothing, shoe, or furniture manufacturing.

Definitions and scope	Potential for exposure	Potential adverse impacts	Potential alternatives
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Scope of Candidate Chemical: Perfluoroalkyl and polyfluoroalkyl substances (PFASs)

- PFASs are a class of nearly 5,000 man-made chemicals with at least one fully fluorinated carbon atom.
- All are Candidate Chemicals for our program, due to listing by Biomonitoring California as Priority Chemicals in 2015.
- PFASs are used in treatments for converted textiles and leathers to impart stain-, soil-, and water-resistance.

Definitions and scope

Potential for exposure

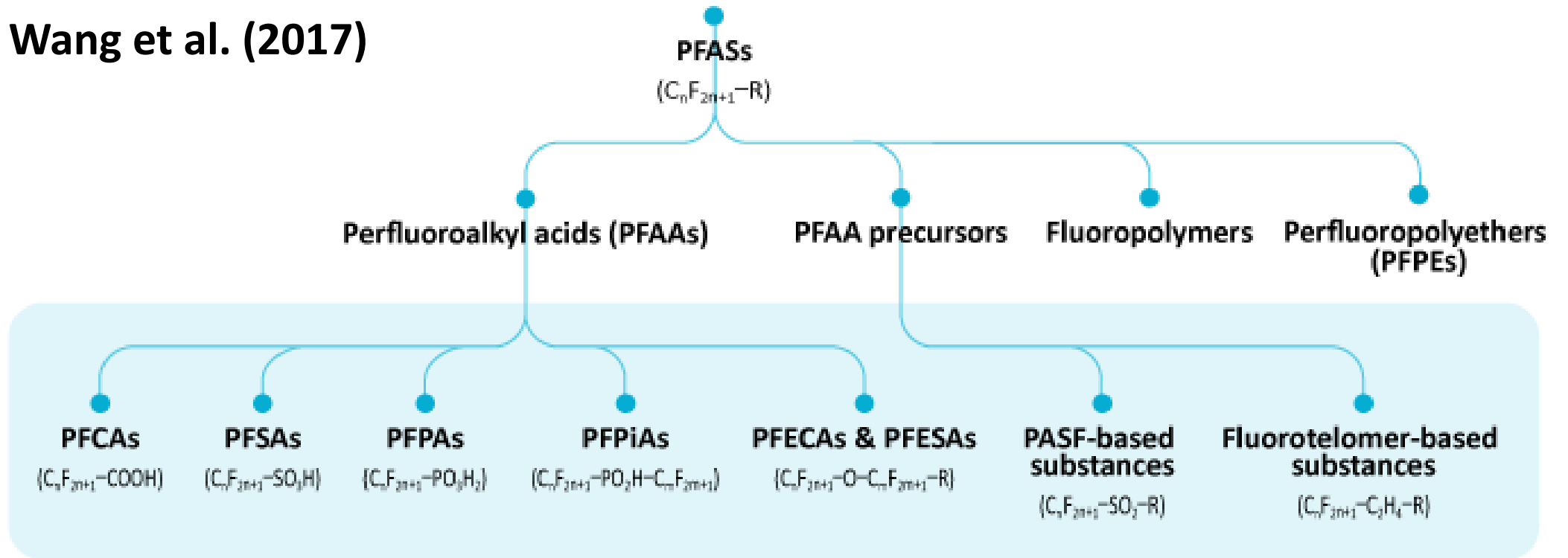
Potential adverse impacts

Potential alternatives



Four main PFAS categories

Wang et al. (2017)



Definitions and scope

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Market presence of the product

- Steady decline in number of manufacturers and sales revenues from 2007 to 2017
 - This does not account for foreign imports and substantial data gaps.
- Incomplete ingredient listing on product labels and Safety Data Sheets
 - A 2008 Danish research report estimated 10% of treatment products contain PFASs.
- Treatment products common in California homes and workplaces
 - Potentially impacted occupations include shoe and leather workers and repairers, vehicle cleaners, and building cleaning workers.

Definitions and scope

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Monitoring data

PFASs are ubiquitous in:

- the environment
- plants, animals, and humans
- human food and drinking water



Definitions and scope

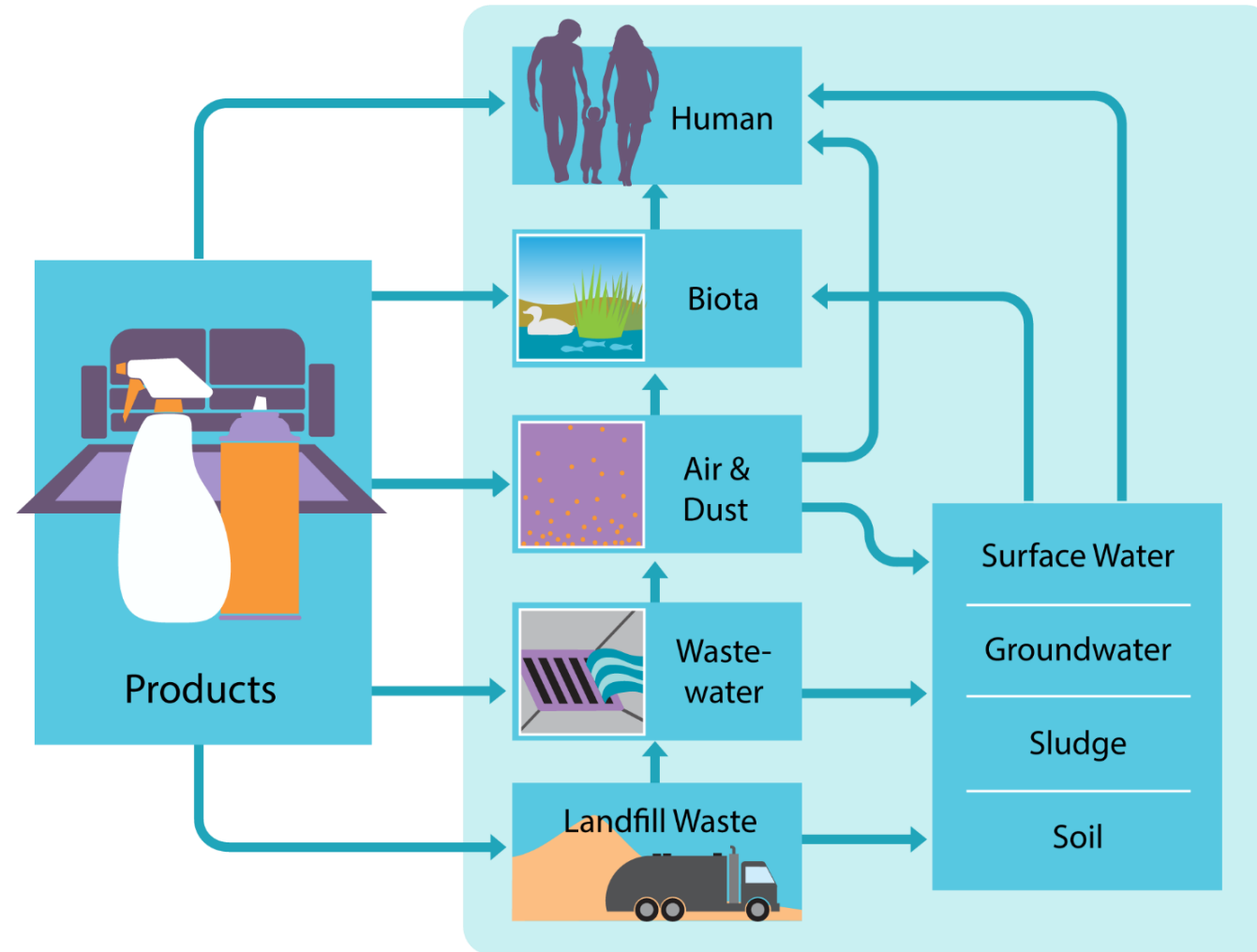
Potential for exposure

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Conceptual exposure model



Definitions and scope

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PFASs or their degradants display exposure potential hazard traits

- Environmental persistence
- Mobility in the environment
- Bioaccumulation



Definitions and scope

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PFASs or their degradants display exposure potential hazard traits

- Environmental persistence
- Mobility in the environment
- Bioaccumulation
- Lactational and transplacental transfer



Definitions and scope

Potential for exposure

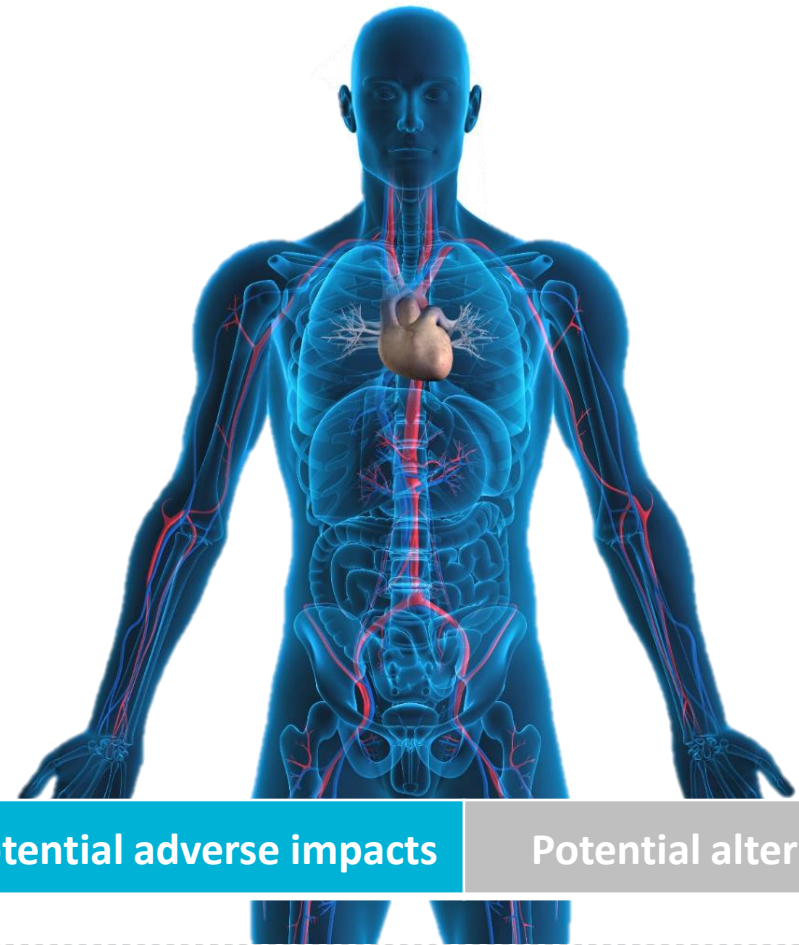
Potential adverse impacts

Potential alternatives



Known toxicological hazard traits of longer-chain PFAs

- Carcinogenicity
- Cardiovascular toxicity
- Endocrine toxicity
- Immunotoxicity
- Reproductive toxicity



Definitions and scope

Potential for exposure

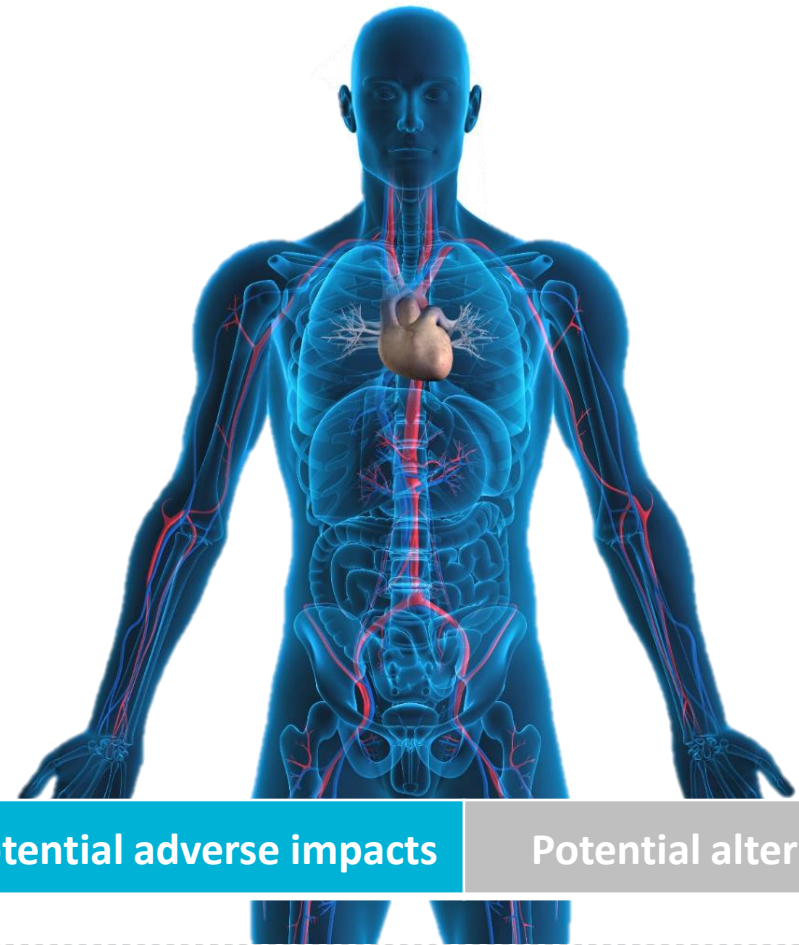
Potential adverse impacts

Potential alternatives



Emerging toxicological hazard traits of shorter-chain PFAs

- Developmental toxicity
- Endocrine toxicity
- Hematotoxicity
- Hepatotoxicity
- Neurodevelopmental toxicity
- Ocular toxicity
- Reproductive and developmental toxicity



Definitions and scope

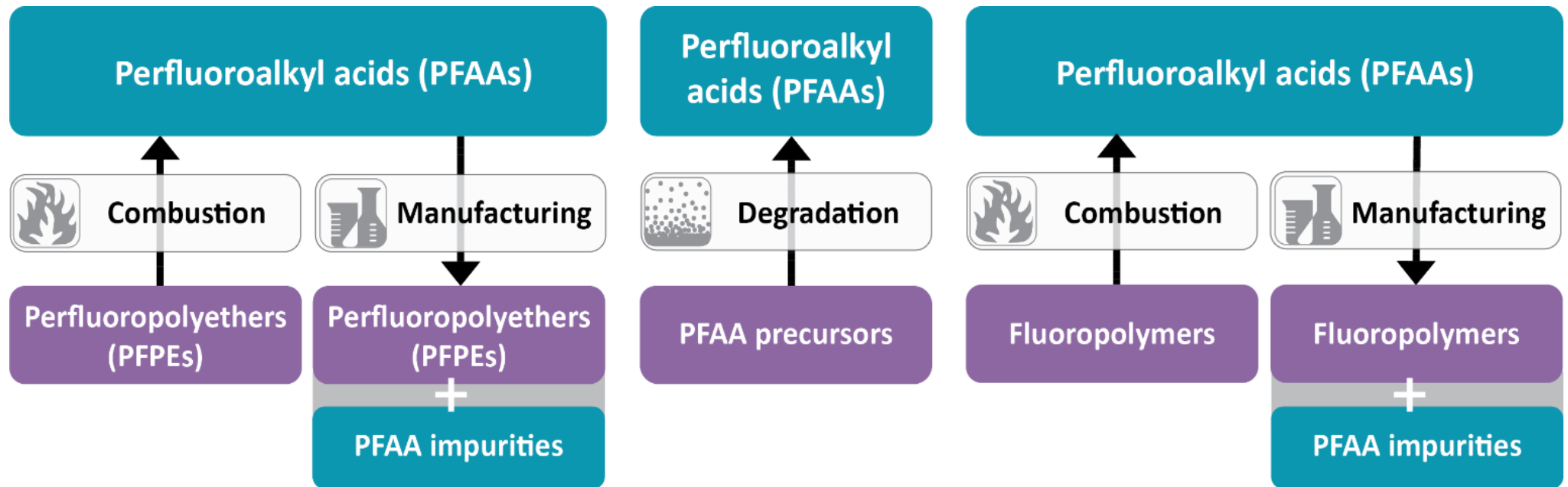
Potential for exposure

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All PFASs are either of concern or have degradation, reaction, or metabolism products of concern



Definitions and scope

Potential for exposure

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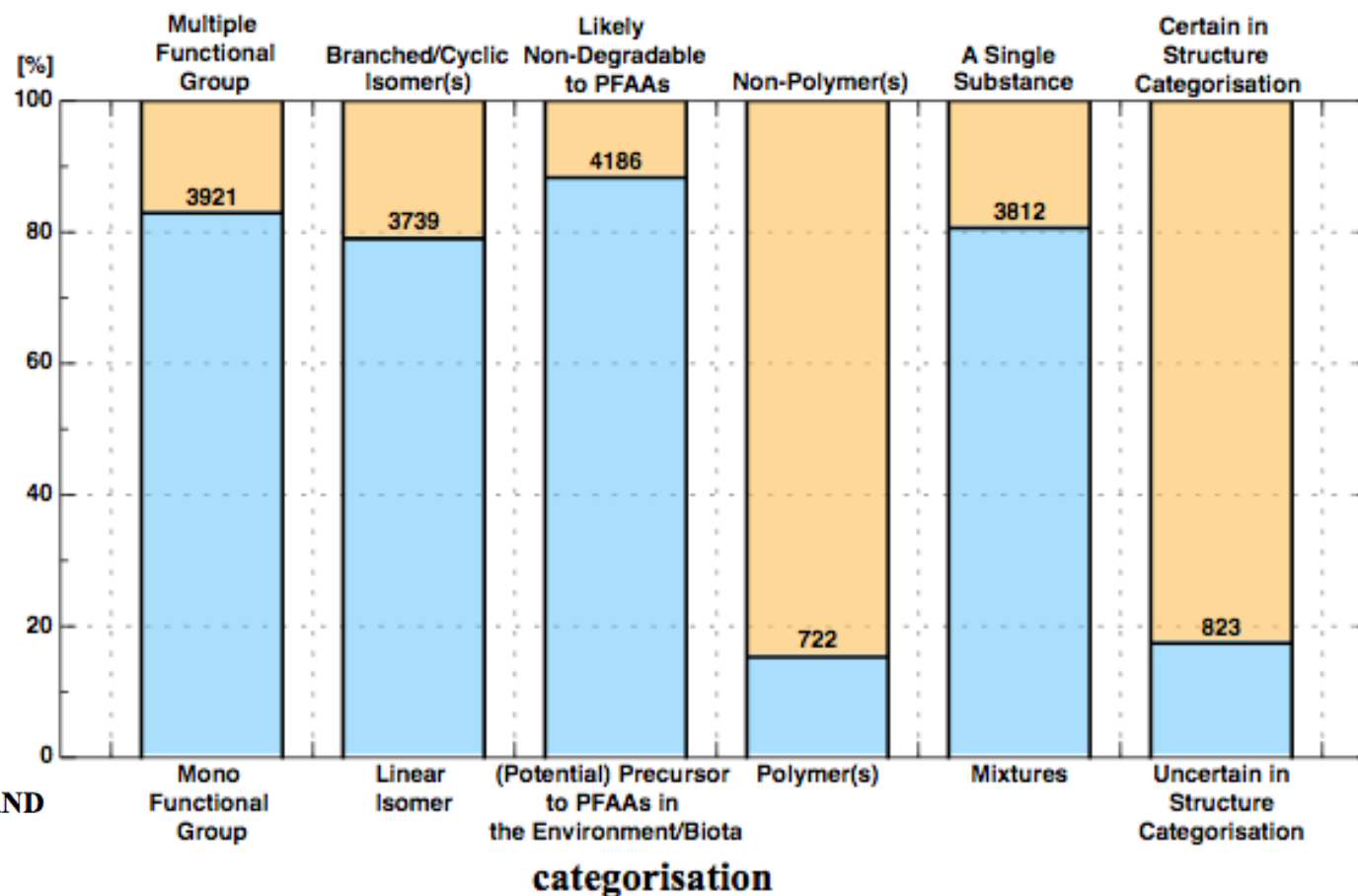
Over 80 percent of PFASs may degrade to PFAAs



Organisation for Economic Co-operation and Development

TOWARD A NEW COMPREHENSIVE GLOBAL DATABASE OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFASs):

SUMMARY REPORT ON UPDATING THE OECD 2007 LIST OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFASs)



Definitions and scope

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Potential adverse impacts to sensitive subpopulations, endangered species, and sensitive habitats

The most vulnerable human subpopulations include:

- Fetuses, infants, children, pregnant women
- Workers
- People with certain preexisting conditions



Definitions and scope

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Potential alternatives

- Siloxane and silicone polymers
- Hydrocarbons (i.e., paraffin waxes)
- Fatty acid derivatives (i.e., long-chain fatty acid esters)
- Polyurethanes
- Dendrimers (hydrocarbon- or polyurethane-based)
- ?

Definitions and scope

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**Submit your
comments on
CalSAFER.dtsc.ca.gov
by Dec. 31, 2019**



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Department of Toxic Substances Control

Questions

1. Is the product definition clear and unambiguous?
2. Is the chemical definition clear and unambiguous?
3. Are there additional data on exposure or adverse impacts that DTSC should be aware of?
4. Do you have any further information on alternatives to PFASs for use in treatments for converted textiles or leathers?





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On Break

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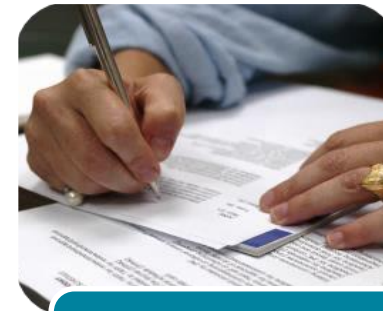
The path to adopting Priority Products



- Set Scope
- Research



- Engagement
- Revisions



- Writing
- Refinement



Rulemaking



Contact information

- Join our E-list to get updates: <http://bit.ly/scpupdates>
- General questions: SaferConsumerProducts@dtsc.ca.gov
- Media inquiries: Sanford.Nax@dtsc.ca.gov
- Technical questions: Andre.Algazi@dtsc.ca.gov
and Simona.Balan@dtsc.ca.gov
- Meeting requests: Heather.Kessler@dtsc.ca.gov

