



California's Safer Consumer Products Program: Advancing chemically safer products for people and the environment

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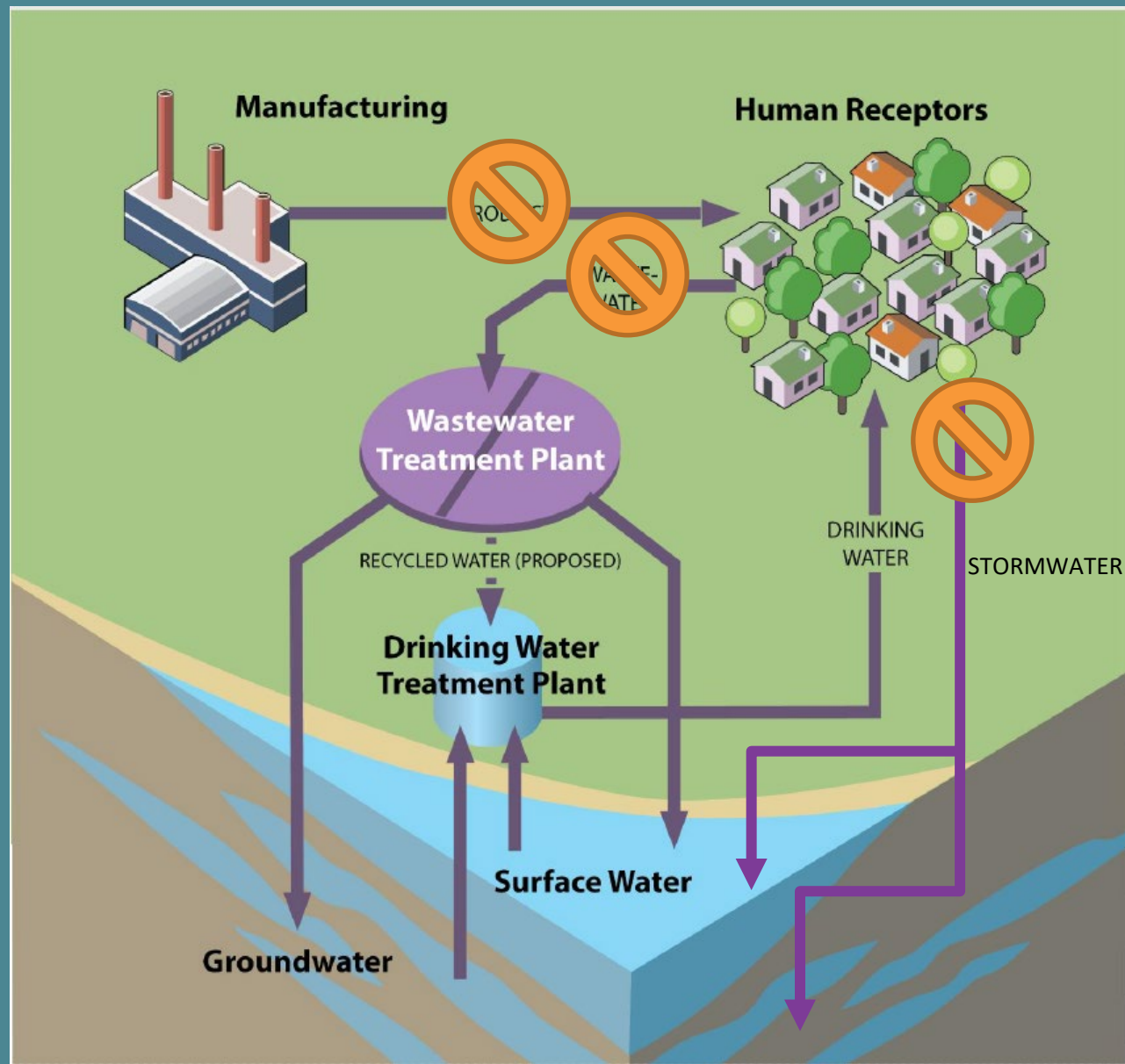
May 2024



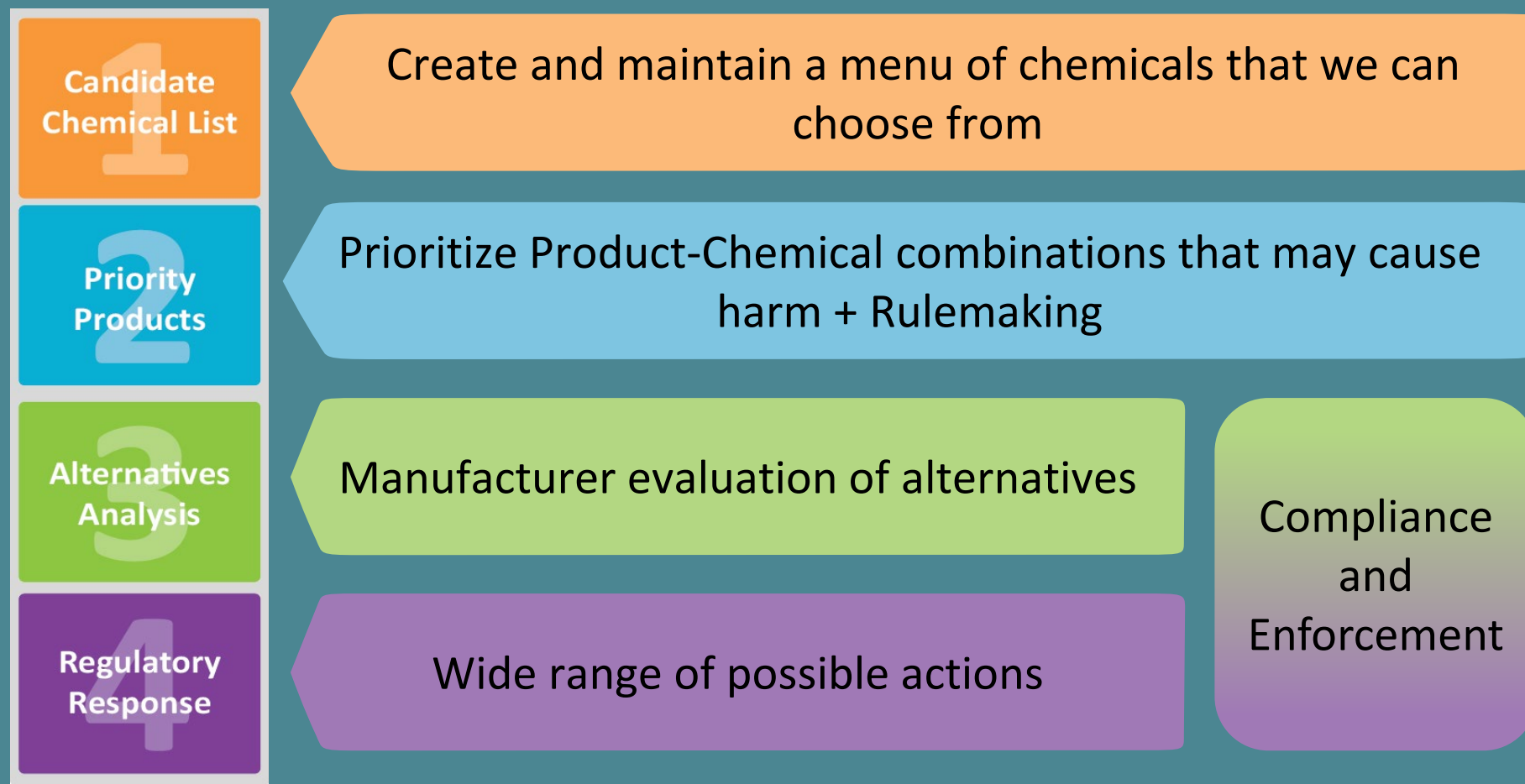
Department of Toxic Substances Control



CalEPA



Safer Consumer Products (SCP) Process



SCP Process



Menu of chemicals that we can choose from



<http://calsafer.dtsc.ca.gov>

N(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine

Related Priority Product

[No related priority products.]

Basis for Listing ⓘ

Bioaccumulation - OSPAR Priority Action Part A - **Date Listed** 01/01/2002

Chemicals that are identified on Part A of the list of Chemicals for Priority Action, Oslo and Paris Conventions for the Protection of the Marine Environment of the North-East Atlantic

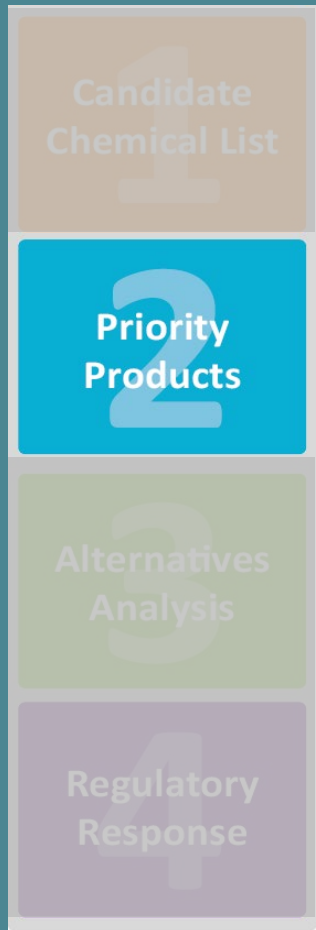
Environ. Persistence - OSPAR Priority Action Part A - **Date Listed** 01/01/2002

Chemicals that are identified on Part A of the list of Chemicals for Priority Action, Oslo and Paris Conventions for the Protection of the Marine Environment of the North-East Atlantic

Toxicity Undefined - OSPAR Priority Action Part A - **Date Listed** 01/01/2002

Chemicals that are identified on Part A of the list of Chemicals for Priority Action, Oslo and Paris Conventions for the Protection of the Marine Environment of the North-East Atlantic

SCP Process



Prioritize Product-Chemical combinations that may cause harm + Rulemaking

Scope of Products

Priority
2
Products

- Exclusions:
 - FIFRA pesticides
 - Prescription drugs
 - Radioactive chemicals
 - Natural toxins
- Priority Product Work Plan = menu of products
 - Released every 3 years

New Work Plan just released –
input welcomed!



Work Plan website: <https://dtsc.ca.gov/scp/priority-product-work-plan/>

2024-2026 Priority Product Work Plan

Product Categories Currently Under Evaluation

Priority
Products
2



Beauty, Personal Care,
and Hygiene Products



Building Products & Materials
Used in Construction and
Renovation



Products that Contain or
Generate Microplastics



Cleaning Products



Children's Products



Paints

N
e
w



Work Plan website: <https://dtsc.ca.gov/scp/priority-product-work-plan/>

2024-2026 Priority Product Work Plan

Product Categories Intended For Evaluation



Food Contact Articles



Motor Vehicle Parts, Accessories, Maintenance, and Repair Materials



Electronics



Products Used or Produced by Metal Plating and Finishing Facilities



Sporting and Athletic Equipment



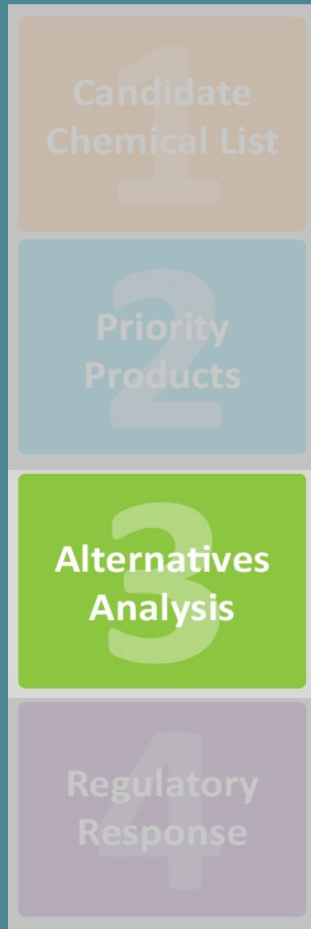
Pet Care Products



Priority Product Prioritization Process

- Evaluate chemicals in the context of products.
- Consider the **potential** for:
 - Exposure to the chemical from the product
 - Significant or widespread harm from that exposure
- Narrative standard

Safer Consumer Products Framework



Manufacturers search for and evaluate alternatives



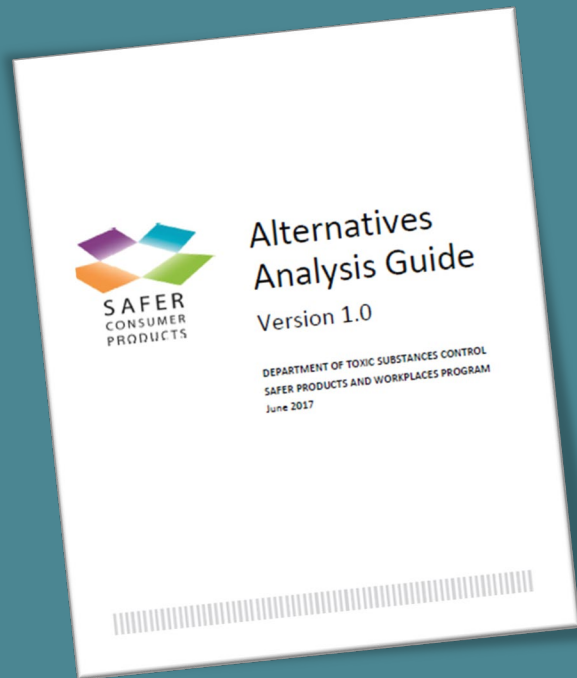
The AA process seeks to avoid regrettable substitutions

Answers key questions:

- Is it necessary?
- Is there a safer alternative?
- What are the tradeoffs?

Requires:

- Ecological impacts
- Life cycle impacts
- Economic analysis
- Performance evaluation
- Public comment



4 Regulatory Response

- Draft Regulatory Response proposed by DTSC
- Available for public comment
- Final Regulatory Response

The Regulatory Response is customized to each entity

Options include:

- No response
- Additional info to DTSC
- Additional info to consumers
- Additional safety measures
- Sales restrictions/ prohibitions
- End-of-life product stewardship
- Research funding

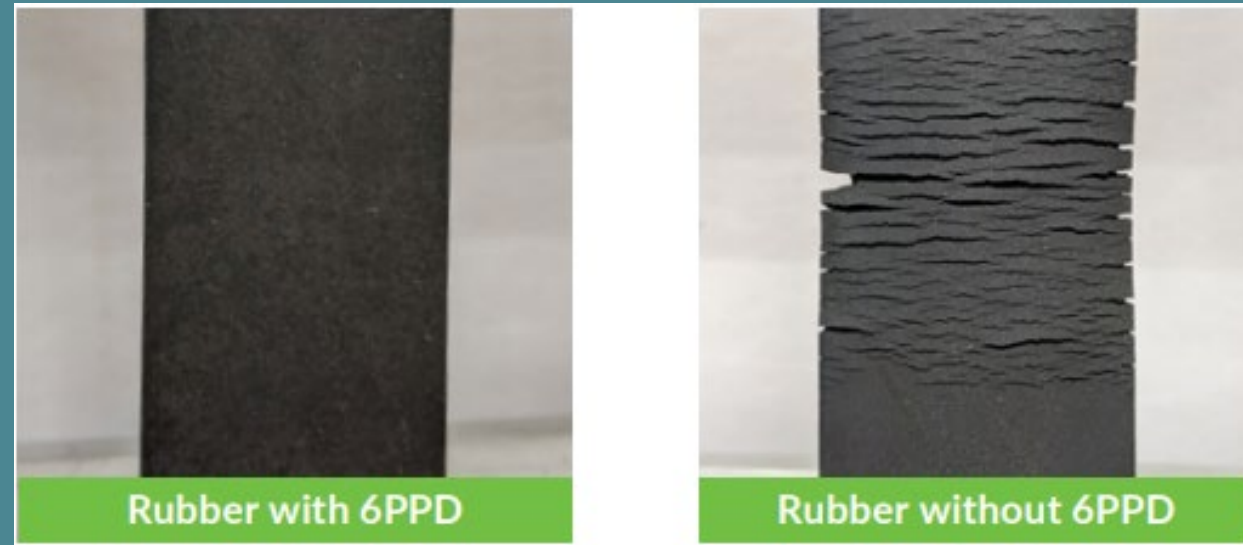


Priority Product Designation Case Study: 6PPD in Motor Vehicle Tires



6PPD

- Antidegradant (ozone, oxygen)
- Prevents cracking of rubber
- Reacts with ozone to form 6PPD-quinone
 - recently discovered to be acutely toxic to coho salmon, rainbow trout, and brook trout



(USTMA 2022)

Table 1. Comparison of the Toxicity of 6PPD-Q to Coho Salmon with Those of the Most Toxic Chemicals for Which the U.S. Environmental Protection Agency Has Established Aquatic Life Criteria^a

chemical class	name	most sensitive species	LC ₅₀ (ppb)	95% CI	ref	CMC (ppb)	EPA document
OP	parathion	<i>Orconectes nais</i>	0.04	0.01–0.2	25	0.065	EPA 440/5-86-007
quinone	6PPD-Q	<i>O. kisutch</i>	0.10	0.08–0.11	this study	not available	not available
OC	mirex	<i>Procambaris blandingi</i>	0.10	not reported	26	0.001	EPA 440/5-86-001
OP	guthion	<i>Gammarus fasciatus</i>	0.10	0.073–0.014	25	0.01	EPA 440/5-86-001
OP	chlorpyrifos	<i>Gammarus lacustris</i>	0.11	not reported	27	0.083	EPA 440/5-86-005
OC	endrin	<i>Perca flavescens</i>	0.15	0.12–0.18	28	0.086	EPA 820-B-96-001
OC	4,4'-DDT	<i>O. nais</i>	0.18	0.12–0.30	25	1.1	EPA 440/5-80-038
OP	diazinon	<i>Ceriodaphnia dubia</i>	0.25	not reported	29	0.17	EPA-822-R-05-006
metal	cadmium	<i>Oncorhynchus mykiss</i>	0.35	not reported	30	1.8	EPA-820-R-16-002
OC	methoxychlor	<i>O. nais</i>	0.50	0.25–1.8	25	0.03	EPA 440/5-86-001
OC	dieldrin	<i>Pteronarcaella badia</i>	0.50	0.37–0.67	28	0.24	EPA 820-B-96-001
OP	malathion	<i>G. fasciatus</i>	0.76	0.63–0.92	25	0.1	EPA 440/5-86-001
OC	toxaphene	<i>Ictalurus punctatus</i>	0.8	0.5–1.2	31	0.73	EPA 440/5-86-006

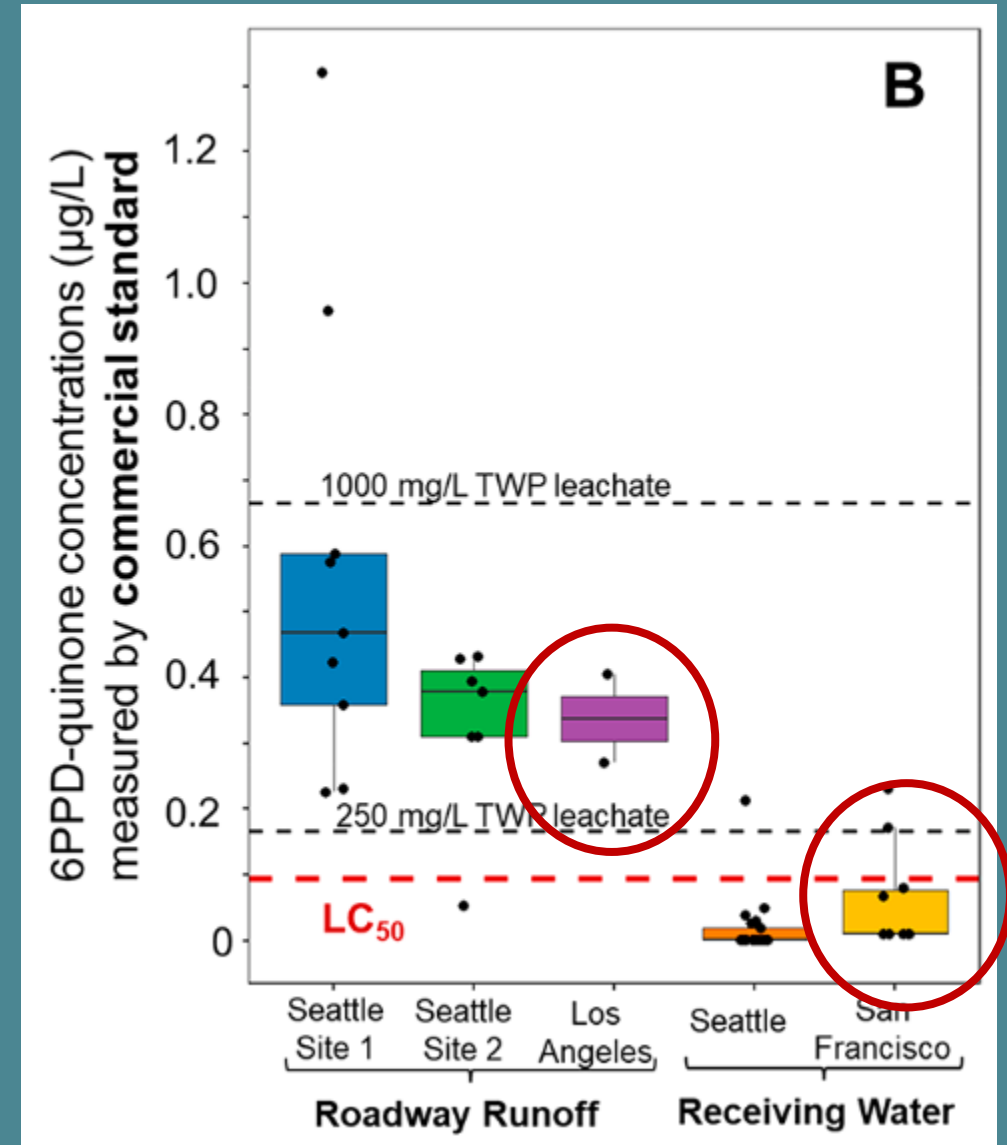
(Tian et al. 2022)

Potential for Exposure to 6PPD, 6PPD-Quinone from Tires

- Used in presumably all tires
- High rates of release of tire wear particles containing 6PPD, 6PPD-quinone to the aquatic environment
- End-of-life applications may further contribute
- Detections of 6PPD-quinone in California runoff and waterways

Potential for Significant Adverse Impacts

- 6PPD toxic at multiple trophic levels
- 6PPD-quinone acutely toxic to coho, an endangered species, at a variety of life stages
- Environmental detections of 6PPD-quinone in California above the concentration that kills half of the exposed coho
- Impacts to California's Native American tribes



Leading the way on 6PPD

- Regulations effective October 2023
- First agency in the world to regulate 6PPD in tires
- Preliminary Alternatives Analyses due March 29, 2023

FINAL REGULATORY TEXT

May 2023

SAFER CONSUMER PRODUCTS REGULATIONS – Listing Motor Vehicle Tires Containing N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD) as a Priority Product

Department of Toxic Substances Control reference number: R-2022-04R

Amend section 69511 and adopt section 69511.7, to article 11, chapter 55, division 4.5 of title 22 of the California Code of Regulations, to read as follows:

Section 69511. General.

- (a) This article specifies product-chemical combinations listed as Priority Products pursuant to section 69503.5.



Ongoing Work Related to CECs



Additional Work on Tires

- Proposed Priority Product: Motor Vehicle Tires Containing Zinc
 - Rulemaking this year
- Other Chemicals in Tires and Motor Vehicles:
 - Proposed expansion of product category
 - Continue to monitor and evaluate



Candidate Chemical Additions

- Potential CC List Addition: PPD Derivatives
 - Require additional scrutiny during the AA process for 6PPD
 - Rulemaking later this year
- Potential CC List Addition: Microplastics
 - Finishing the External Scientific Peer Review process
 - Rulemaking coming soon



PFAS

- Two Adopted Priority Products:
 - Carpets and Rugs Containing PFAS
 - Treatments Containing PFAS for use on Converted Textiles or Leathers
- Our Technical document on Food Packaging Containing PFAS heavily informed subsequent legislation
- Evaluating as part of work on Artificial Turf
- Class based approach

Commentary

A Section 508-conformant HTML version of this article is available at <https://doi.org/10.1289/EHP7431>.

Regulating PFAS as a Chemical Class under the California Safer Consumer Products Program

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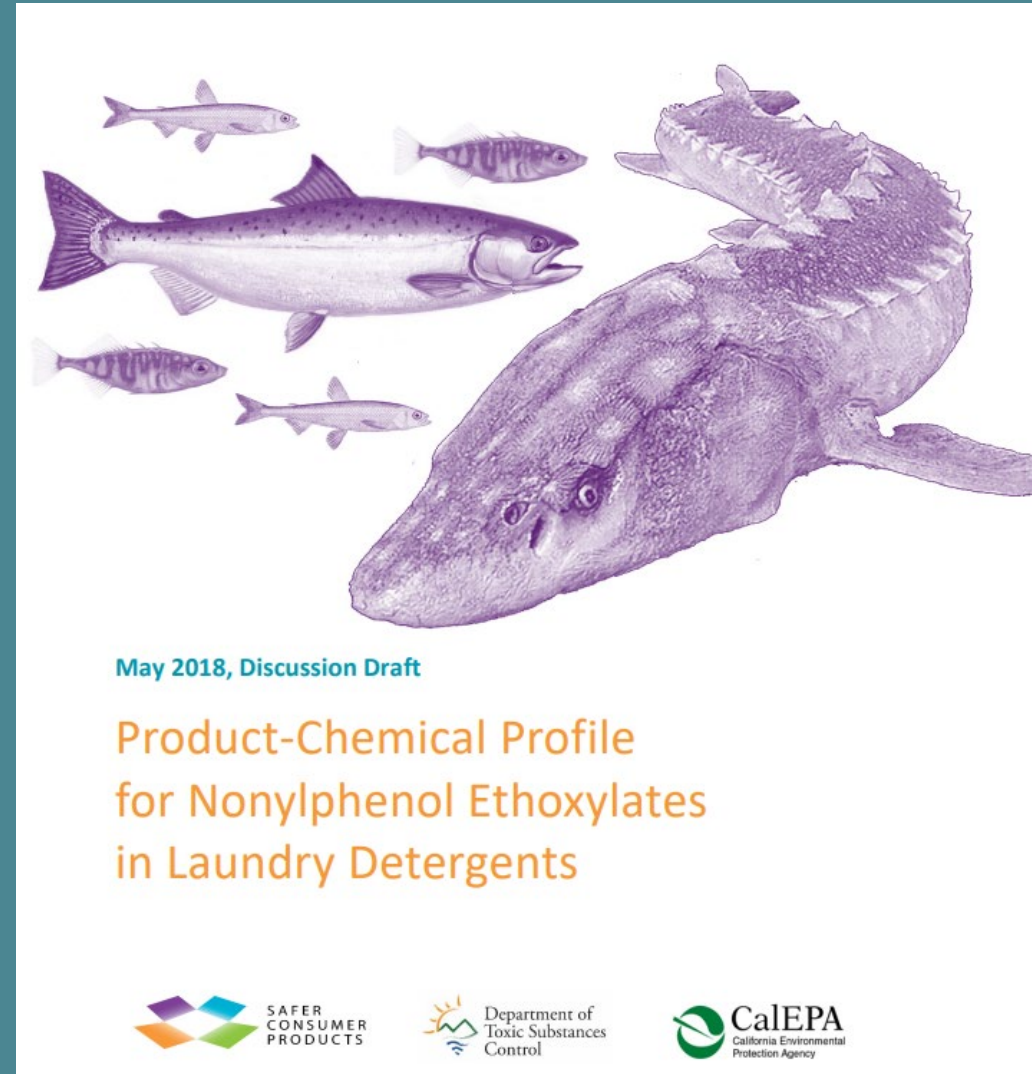
¹Safer Consumer Products Program, California Department of Toxic Substances Control, Sacramento, California, USA

BACKGROUND: Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a group of manmade chemicals containing at least one fully fluorinated carbon atom. The widespread use, large number, and diverse chemical structures of PFAS pose challenges to any sufficiently protective regulation, emissions reduction, and remediation at contaminated sites. Regulating only a subset of PFAS has led to their replacement with other members of the



Nonylphenol Ethoxylates

- Proposed Priority Product:
Laundry Detergents Containing
Nonylphenol Ethoxylates
- Rulemaking proposed, finalizing
now



Additional Screening/Early Research

- Quaternary Ammonium Compounds in Personal Care and Cleaning Products
 - Background document to be released and workshop held later this year

- Artificial Turf
 - Background document to be released and workshop held later this year

Questions?

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