

**How has Prop 65 impacted product
(re)formulations?**

**Where might listed chemicals still be
found?**

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BUSINESS DECISION- MAKING

How a Right-to-Know Law Shifts Industry away from Chemicals of Concern: The Case of California's Proposition 65

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Cite This: *Environ. Sci. Technol.* 2025, 59, 3344–3354



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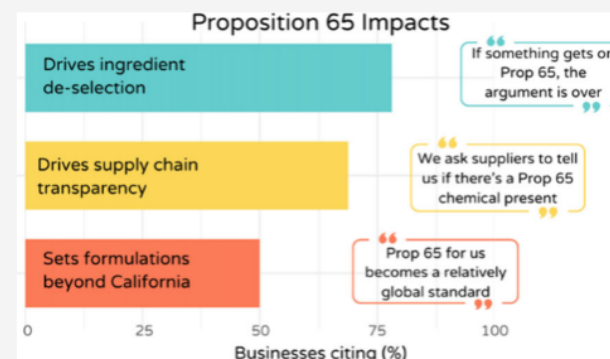


Supporting Information

ABSTRACT: Since enactment of the major federal environmental statutes of the 1970s, U.S. toxics policy has departed from a primary goal of controlling pollution to increasingly focus on information transparency. One of the most prominent right-to-know laws, California's Proposition 65, has been in force since 1986, yet there is scant literature on its systemic impacts. We conducted 32 semi-structured interviews with business leaders representing some of the largest actors in their sectors to investigate Proposition 65's impacts. We found that Proposition 65 prompts changes to consumer product ingredients and improves supply chain transparency. Businesses (re)formulated products for national and even international markets based on this state law, highlighting the leverage of environmental regulations in a large state like California.

Information-forcing laws can thus protect public health in ways that transcend the immediate impacts of transparency with the public about product ingredients. Where Proposition 65 has prompted reformulation, however, there is no check on the safety of alternatives, aside from the incentive to avoid other Proposition 65-listed chemicals. In this study, semi-structured interviews gave insights into the less visible health benefits of a law that lacks built-in methods for quantifying impact and is often publicly disparaged by the businesses it governs.

KEYWORDS: Proposition 65, ingredient disclosure, environmental policy analysis, right-to-know, environmental enforcement, ingredient transparency



Methods

- 32 semi-structured interviews with business leaders
 - Primarily in cleaning, personal care, health, electronics, apparel
 - Companies that are among the largest ones globally in their sector by revenue
 - Also included trade associations and consulting firms for a “macro” view

Key Impacts of Prop 65 (N=32)

Impacts	% of Interviewees
Prompts reformulation of products	78% (n=25)
Promotes ingredient transparency and supply chain transparency	69% (n=22)
Impacts product formulations beyond California	50% (n=16)
Promotes elimination of Proposition 65-listed chemicals instead of (re)formulations to below safe harbor levels	41% (n=13)
Drives selection of suppliers	28% (n=9)

Prop 65 influences (re)formulations



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- To 1) avoid the need to warn, or 2) conform with RSLs and 3rd party certifications (e.g., GreenScreen, Green Seal)
- Often prompts elimination of listed chemicals completely

“Prop 65 by design is a risk-based standard. The way that it’s being treated is as a hazard-based standard largely. Companies are trying to avoid [listed chemicals] even if they might be able to use them in a way that it complies with the law.”

Promotes supply chain transparency



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“Because of the enforcement threat, everyone there is learning about their supply chain.”

“We require our suppliers to report any Prop 65 chemicals at detectable levels that end up in our products. It’s a reportable requirement, it’s not a safe harbor determination requirement.”



PRODUCT COMPOSITION: CARB DATA

Identifying Toxic Consumer Products: A Novel Data Set Reveals Air Emissions of Potent Carcinogens, Reproductive Toxicants, and Developmental Toxicants

Kristin E. Knox,* Robin E. Dodson, Ruthann A. Rudel, Claudia Polsky, and Megan R. Schwarzman



Cite This: <https://doi.org/10.1021/acs.est.2c07247>



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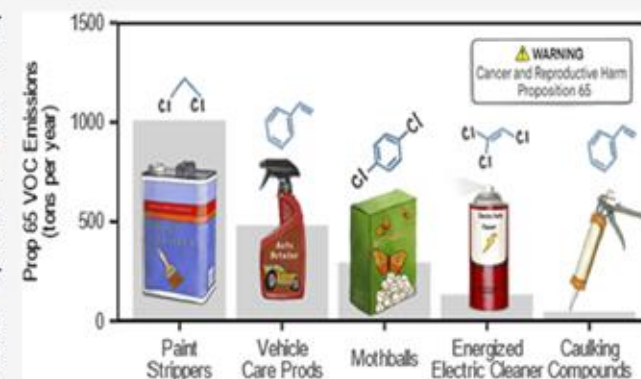
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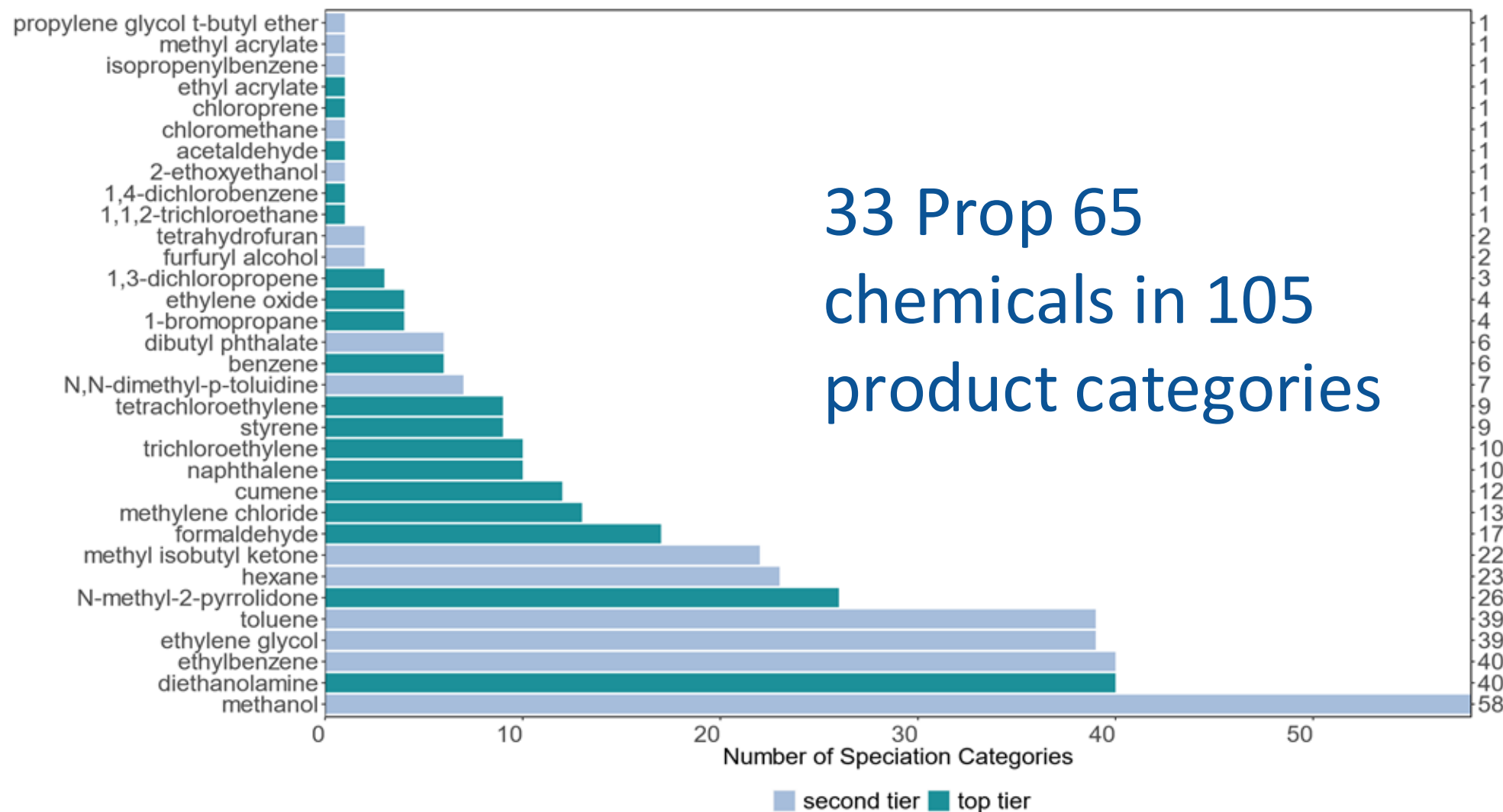
ABSTRACT: Consumer products are important sources of exposure to harmful chemicals. Product composition is often a mystery to users, however, due to gaps in the laws governing ingredient disclosure. A unique data set that the California Air Resources Board (CARB) uses to determine how volatile organic chemicals (VOCs) from consumer products affect smog formation holds a partial solution. By analyzing CARB data on VOCs in consumer products, we identified and quantified emissions of volatile chemicals regulated under the California Safe Drinking Water and Toxic Enforcement Act ("Prop 65"). We here highlight individual chemicals as well as consumer product categories that people are likely to be exposed to as individual consumers, in the



Volatile Prop 65 chemicals in products

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CARB DATA



30 product categories highlighted for toxic VOC content



CARB DATA

Products used in the workplace

- Adhesives ----- 17 Prop 65 VOCs
- Sealants/caulks ----- 14 Prop 65 VOCs
- Cleaners/degreasers ----- 13 Prop 65 VOCs
- Lubricants ----- 13 Prop 65 VOCs

Products routinely used in the home

- Various cleaners ----- 12 Prop 65 VOCs
- Office supplies ----- 8 Prop 65 VOCs
- Laundry detergent ----- 6 Prop 65 VOCs
- Pet care products ----- 4 Prop 65 VOCs

Products used on the body

- Other personal care ----- 9 Prop 65 VOCs
- Nail products ----- 8 Prop 65 VOCs
- Hair products ----- 7 Prop 65 VOCs
- Hand cleaners ----- 5 Prop 65 VOCs

11 chemicals highlighted for prevalence in products



CARB DATA

Diethanolamine (DEA) ----- 40 categories

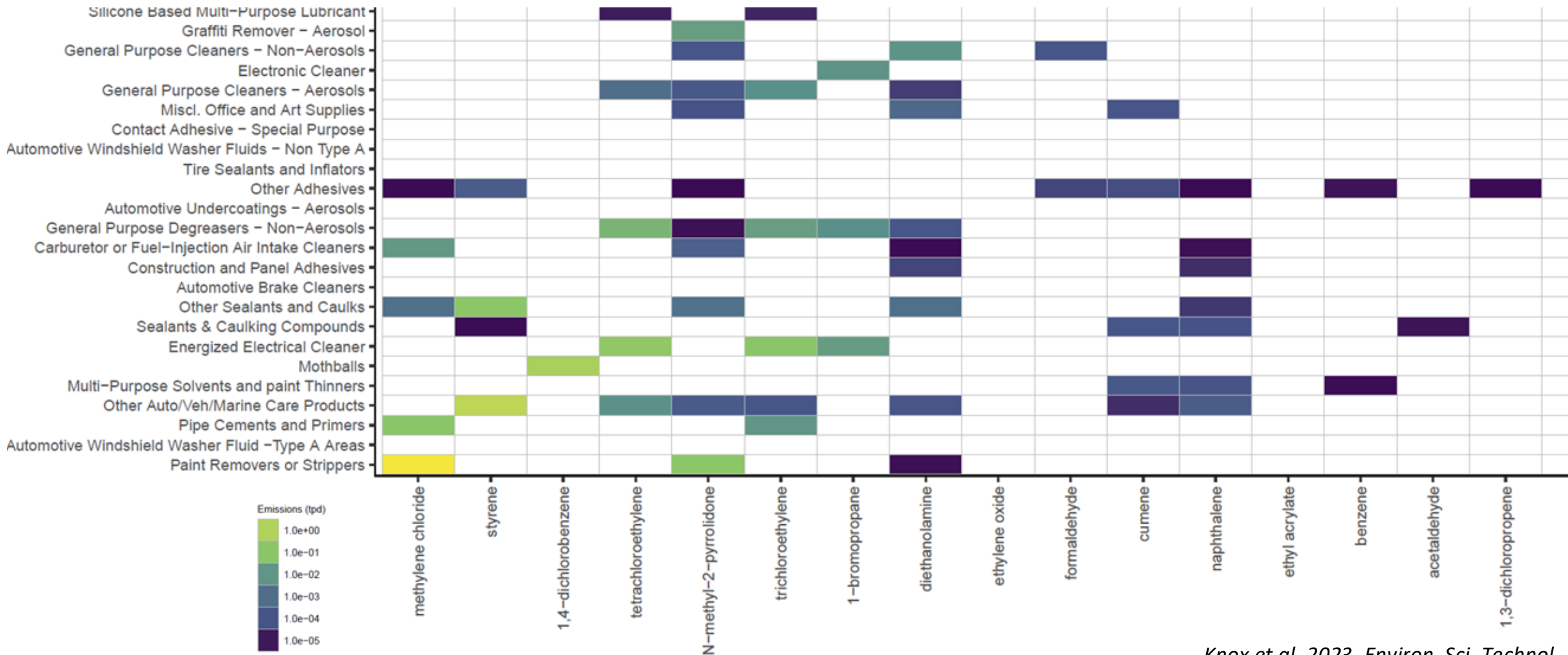
N-methyl-2-pyrrolidone (NMP) ----- 26 categories

Formaldehyde ----- 17 categories (DTSC action on several)

Methylene chloride ---- 13 categories



Prop 65 chemicals emitted from products



Thank you!

Team

- Meg Schwarzman UC Berkeley School of Public Health, Envir. Health Sciences
- Ruthann Rudel, Robin Dodson, Kristin Knox, Silent Spring Institute
- Claudia Polsky, UC Berkeley School of Law
- With: Janet Nudelman & Sharima Rasanayagam, Breast Cancer Prevention Partners

Funding

- Primary: California Breast Cancer Research Program (Grant #23QB-1881)
- Supplemental: Charitable contributions
& Prop 65 payments-in-lieu-of-penalties to Silent Spring Institute

