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**Toxics in Consumer Products:  
California's Green Chemistry Regulations at a Crossroad**  
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**Introduction** Americans are awash in chemicals—in our workplaces, our homes and our communities. Approximately 27 trillion pounds of chemicals are produced or imported into the United States every year, more than one trillion of them in California alone.<sup>1</sup> More than 6,000 different chemicals are produced in volumes exceeding 25,000 lbs annually, with more than one-third of those used in consumer or commercial products such as paints, household cleaners, electronics, toys and clothing.<sup>2</sup> Many of those chemicals have been detected in the environment and in the bodies of men, women and children. The Centers for Disease Control and Prevention's biomonitoring program, which collects and analyzes the blood and urine of a nationally representative sample of the civilian U.S. population every two years, has detected hundreds of man-made chemicals in those samples.<sup>3</sup> Likewise, there is widespread contamination of breast milk, including chemicals such as polychlorinated biphenyls (PCBs), DDT and its metabolites, dioxins, dibenzofurans, polybrominated diphenyl ethers (PBDEs), and heavy metals.<sup>4</sup>

Regulatory action regarding chemical use and exposure at the federal level has been notoriously slow and ineffective. Congress addressed the regulation of chemicals as chemicals with the passage of the federal Toxic Substances Control Act (TSCA) in 1976.<sup>5</sup> Some thirty-five years later, the strong consensus among policymakers, ac-

ademics, environmental groups, and even industry is that TSCA is a failure. The well-documented flaws of the federal program include the weak authority EPA possesses for testing and review of new and existing chemicals, the onerous administrative and substantive hurdles the agency must clear in order to regulate, and the limited funding provided for implementation of the program.<sup>6</sup> These and other problems have functionally frozen the TSCA program; for example, since 1976 EPA has taken comprehensive regulatory action regarding existing chemicals in only five instances.<sup>7</sup> Yet despite repeated reform efforts in Congress, the statute remains unchanged.<sup>8</sup>

In the face of relative inaction at the federal level, state governments have moved to address hazardous chemical use. Over the last ten years, at least eighteen states have passed laws banning or restricting the use of specific chemicals in consumer products such as bisphenol A (BPA), lead, cadmium, toxic flame retardants, and phthalates.<sup>9</sup> Four states in particular—California, Maine, Minnesota, and Washington—went beyond piecemeal chemical-by-chemical regulation to also adopt new, more comprehensive chemical regulation programs.<sup>10</sup> (Table 1 compares key components of the four state programs.) This brief evaluates the California legislation, identifying four critical flaws that threaten to undermine its success and providing a set of recommended revisions.

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If you have not yet seen it, I encourage you to check out our newest [Pritzker Policy Brief](#), on California's Green Chemistry regulations. Written by our own [Timothy Malloy](#), *Toxics in Consumer Products* takes a critical look at these new regulations.

Fellow blogger Matt Kahn [mentioned](#) the other day that he was a big fan of California's Green Chemistry Initiative. I agree that the green chemistry movement shows a lot of promise for improving our largely ineffective chemical regulations.

Malloy notes that the federal Toxic Substances Control Act (TSCA), passed in 1976, is basically a failure because it gives EPA little authority and less funding to test and review thousands of new and existing chemicals.

California's green chemistry program would shift the focus to *alternatives analysis*. This means the California Department of Toxic Substances Control (DTSC) would be tasked with identifying and prioritizing products containing chemicals of concern. Then product and chemical manufacturers would be required to determine the relative safety and viability of potential substitutes for those priority chemicals of concern. DTSC reviews these alternatives analyses and develops regulatory responses to limit use of the priority chemical accordingly. Unlike TSCA, California's program would shift much of the analysis burden to producers and manufacturers, encouraging them to design safer products and taking advantage of their existing chemical expertise.

Professor Malloy's four key recommendations seek to improve the implementation and effectiveness of California's green chemistry program:

1. DTSC should require review of new chemicals and new uses of existing chemicals before they are put into the marketplace. This pre-market review is a common-sense preventative measure. Currently, scientific studies of chemical toxicity and exposure can be years or decades behind the introduction of a chemical into the marketplace, meaning that we have no information on the toxicity of many chemicals in use today.
2. In order to regulate these chemicals, product manufacturers need to disclose to DTSC the use of these chemicals in their products. In this regard, TSCA's requirements on information gathering and submission are currently superior to that of California's Green Chemistry Initiative.
3. California should prioritize prevention over management of toxic chemicals by expressly preferring the adoption of safer alternative products. Instead of managing exposure by, for example, creating buffer zones around schools for spraying of certain chemicals, a prevention-based approach would focus on alternatives to the chemical first, with exposure controls as a secondary level of protection.
4. Establish adequate, stable funding. California's green chemistry program places a significant resource burden on DTSC but lacks a funding mechanism. The response should be either authority for a regulatory fee or shifting market oversight to qualified, independent third-party consultants who certify manufacturers' alternatives analyses.

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