

# Evolving ‘Green Chemistry’ Program Needs Focus; State Must Adopt Sensible, Workable Regulations

In 2008, the California Legislature passed bipartisan measures that sought to create a new, science-based framework for regulating chemicals in consumer products. The Green Chemistry Initiative, authorized by AB 1879 (Feuer; D-Los Angeles; Chapter 559) and SB 509 (Simitian; D-Palo Alto; Chapter 560), was the product of a collaborative effort by legislators, the Schwarzenegger administration and stakeholders to give the California Department of Toxic Substances Control (DTSC) broad authority to regulate the use of potentially hazardous substances in consumer products.

The driving force behind green chemistry was a broad-based desire for state regulators and scientists, rather than politicians, to exercise their expert scientific and engineering judgment and experience when evaluating potential threats to human health or the environment and to determine appropriate regulatory actions. The politicized piecemeal approach to chemical regulation often attempted by the Legislature was to be replaced by a centralized regulatory structure that was removed from political influences and based on sound science.

## Federal/California Chemical Regulation

Federal law contains one major statute that enables regulation of chemicals both before and after they enter the stream of commerce. The Toxic Substances Control Act of 1976 (TSCA) requires chemical producers to generate and submit test data under certain conditions. When TSCA was implemented in 1979, there were 62,000 chemicals in commercial use in the United States that were grandfathered in under the law. Chemical producers are not required to provide information on the toxic properties of these chemicals, and the U.S. Environmental Protection Agency (EPA) is charged with assessing the risk associated with those chemicals. Many complain that there are hurdles under TSCA that prevent the EPA from collecting sufficient information from chemical producers, and that this lack of information leaves regulators and consumers in the dark.

TSCA also allows the EPA to regulate the use of chemicals if the agency can provide substantial evidence that the chemical presents an unreasonable risk to human health and the environment, the benefits of regulation outweigh the cost to industry and society, and the EPA regulates in a way that eliminates only the unreasonable risk. Proponents of further regulation claim that EPA is limited in its ability to regulate chemicals by the legal standards contained in TSCA.

Proposition 65, California’s Safe Drinking Water and Toxic Enforcement Act of 1986, applies to people doing business in California, including those who import products. Under Proposition 65, the state maintains a list of chemicals that are either carcinogens or reproductive toxicants. Businesses are prohibited from discharging listed chemicals into sources of drinking water, or exposing people to a listed chemical without prior warning. Proposition 65 has become a source of great controversy over the years because of a private right of action that allows individuals to sue to enforce the law.

California does have other chemical restrictions and regulations that have been passed over the last several years, but with the exception of green chemistry, they are limited to specific substances and applications and do not contain broad regulatory authority.

## Statutory Requirements for Green Chemistry

Generally, AB 1879 provided DTSC with the authority to identify, prioritize and regulate potentially hazardous substances in consumer products. SB 509 clarified what types of consumer products would be subject to the provisions of AB 1879 and created a Toxics Information Clearinghouse designed to collect and store relevant scientific information. Specifically, AB 1879 and SB 509 provide for the following:

● **Toxics Information**

**Clearinghouse.** DTSC is required to establish the Toxics Information Clearinghouse, which will serve as a decentralized, web-based system for collecting, maintaining and distributing chemical hazard traits, environmental and toxicological information.

● **Multimedia Lifecycle Analysis.**

DTSC will be required to complete a multimedia lifecycle analysis of any substance that is being considered for regulation under AB 1879.

● **Green Ribbon Science Panel.**

DTSC must establish a Green Ribbon Science Panel composed of members with expertise in various scientific disciplines.

● **Definition of “Consumer**

**Products.”** The types of consumer products subject to the provisions of AB 1879 and SB 509 are specifically outlined in the legislation. “Consumer product” means any product, or part of a product, that is used, bought or leased for use in California. There are specific exemptions to AB 1879 for products that already are regulated under other state and federal statutes, such as pharmaceuticals, food, pesticides and dental restorative materials.

● **Identify and Prioritize**

**Chemicals.** DTSC is required to adopt regulations to establish a process to identify and prioritize chemicals and chemical ingredients in consumer products by January 1, 2011. This process of prioritization will consider the volume of the chemical in commerce, the potential for exposure to consumers, and impacts on sensitive populations.

● **Trade Secret Protections.** AB 1879 allows businesses that submit information to identify specific data as a trade secret as long as supporting documentation is provided and provides a process where a business can defend against public requests for those trade secrets.

● **Regulation of Substances.**

DTSC is required to adopt regulations that establish a process for evaluating “chemicals of concern” in consumer products, and their possible alternatives, to determine how to limit exposure to consumers and the environment. Following the evaluation, DTSC can take virtually any regulatory

action—from no action to a complete ban of the chemical.

**Green Chemistry Implementation**

In the wake of this groundbreaking legislation, the California Chamber of Commerce, along with a large number of business trade groups and companies, formed the Green Chemistry Alliance (GCA) to work constructively on green chemistry implementation so that the promulgated regulations remain true to the objective and scientific ideals of the authorizing legislation.

In June 2009, GCA submitted a conceptual regulatory proposal to DTSC that offered an example of what a reasonable and effective regulation might look like. The GCA proposal was a forward-looking approach to identifying, prioritizing, evaluating and regulating the highest priority chemicals of concern in consumer products while also promoting truly safer alternatives. The proposal consisted of a comprehensive set of

regulatory concepts that fully satisfied the substance and intent of the 2008 legislation and would allow timely implementation in an orderly and economically responsible manner.

Months later, however, in October 2009, DTSC released its own conceptual proposal of a Green Chemistry Program that was vast in scope, infeasible and well beyond anything pondered by its authorizing legislation from 2008. The document was called the Safer Alternatives Regulation Straw Proposal and DTSC held workshops and meetings with stakeholders to discuss the proposal’s merits.

Although DTSC has not adopted the proposal and may choose to pursue a different path, highlighting the straw proposal’s serious downsides can be useful in order to help inform the implementation process for green chemistry that will be continuing onward in 2010. Thus, the discussion below highlights the various features of and serious problems with the Straw Proposal. The CalChamber is

**Green Chemistry Timeline**

Major Milestone	Target Date
Public Involvement / Comments and Recommendations / Draft of Unofficial Draft (Straw Proposal) Provided for Public Comment	January 2009 to October 2009
Complete Draft of Proposed Rule	November 2009 to February 2010
Workshop / Public Input	February 2010
Begin External Scientific Peer Review	April 2010
Begin Environmental Policy Council Review of Multimedia Evaluation	April 2010
Office of Administrative Law (OAL) 45-day Public Notice / Public Comment Period*	June 2010
Public Hearing	July 2010
Complete Regulatory Package for OAL	November 2010
OAL Review & Approval	30 Working Days Later
Rule Becomes Effective	30 Days Later

*\*After the close of the comment period, DTSC may adopt the proposed regulation. If substantial changes are made, the modified text will be made available for comment for at least another 15 days prior to adoption.*

Source: Department of Toxic Substances Control

urging DTSC to abandon the approach pondered in the Straw Proposal and adopt a regulation akin to the approach described in the June GCA proposal.

### Expensive, Unworkable Proposal

The Straw Proposal represents the design of a program that would have sweeping adverse ramifications for California's business community. The scope of the proposal is extremely broad and fails to focus the green chemistry program on consumer products that may present significant threats to human health or the environment. The lack of focus is partially attributed to the proposal's very broad definition of "consumer product," which could conceivably include, not only traditional consumer end products, but also raw chemicals and materials used throughout commerce.

#### All-Encompassing Lists

Another problem that enlarges the program's scope beyond workability is its all-encompassing lists, which are used to determine which chemicals or consumer products could be subject to the regulatory process. These lists include:

- 11 consumer product categories that were not well defined;
- 16 pre-designated "chemicals of concern" that lacked any coherent foundation;
- chemicals identified by 29 different state, federal and international sources; and
- 13 hazard criteria, applicable to every detectable chemical in the product.

These lists or "pathways" to regulation would result in roughly 10,000 chemicals and millions of products being covered and subject to the regulatory process and ultimately, under the Straw Proposal, to bans.

#### Products Proposed for Change

Just some of the product categories specifically mentioned in the draft include:

- Products intended for infants and children, such as toys, clothing and furnishings;
- Products for use in K-12 schools;
- Personal care products, such as cosmetics;
- Clothing, shoes, linens and textiles;

- Cleaning products, fragrance, scent, deodorizers;
- Home furnishings; and
- Food preparation, storage, packaging, pots and pans, utensils and bags.

Such enormous breadth without a process that prioritizes the chemicals and products for regulation creates serious concerns about the effectiveness of such a green chemistry program. Under the Straw Proposal, the regulatory process would be triggered, not as a result of the likelihood of harm from a chemical, but merely from the detectable presence of the chemical in a product. Meanwhile, scientists at DTSC would have no role in considering the safety of chemicals and their uses, and which uses of chemicals are a real concern for human health and the environment and thus how they should be regulated.

The proposal also appears to ignore the myriad of other programs that also regulate chemicals and consumer products, meaning its breadth would create duplicative regulations. The net effect would be a green chemistry program that is overly broad, non-functional and infeasible.

#### Compliance Problems for Businesses

If green chemistry is ultimately designed to reflect the straw proposal, the program would have sweeping ramifications for virtually all industry sectors that manufacture or sell a consumer product in California. After examination of the proposal, it remains unclear how manufacturers could ever reliably comply, given the sheer number of chemicals and products covered. Moreover, the small manufacturers and retailers subject to the process would not have the ability to pay for the compliance costs incurred under the described program. In fact, the costs of compliance for even large manufacturers and retailers would be enormous and more important, unnecessary, to accomplish the objectives of the green chemistry legislation.

The alternatives assessment and related life cycle analysis mandates of the Straw Proposal would impose an incredible burden of data production, analysis and reporting that threatens to seriously compromise the use and availability of a very broad range of

consumer products. Compelling every manufacturer in vast product categories to undertake these burdensome analyses for every single product in those categories would result in an enormous economic burden.

Another troublesome aspect of the broad life cycle and alternatives requirement is the chilling effect it would have on precisely what the Green Chemistry Initiative seeks: development and introduction of new, improved products in California. This is the result of the very significant economic and time-to-market burden imposed by the requirements, the uncertainties associated with no minimum thresholds for regulation and the prospect that no matter how diligent manufacturers are, any effort to develop new products risks being tied up for an indefinite time in litigation. All of this will enter the decision calculus regarding initial research and development investment, where that investment is made, and whether it is worth entering the California market.

The Straw Proposal also imposes challenging data sharing requirements that carry with them huge infrastructure costs as companies develop the necessary data tracking and notification systems. These types of data communication and development requirements would likely be cost-prohibitive for most small and medium-sized companies, which do not have the resources or personnel to develop and maintain these systems. It is very likely that the supply-chain communication mechanism considered in the straw proposal would result in halted commerce for many industries and product sectors for long periods, with significant economic damage in the form of returned product shipments and stalled orders.

#### Benefits of Chemicals

The extreme nature of the Straw Proposal for green chemistry appears to ignore the broad societal benefits that are provided by chemicals every day. Chemicals help provide the raw materials for more than 70,000 products that keep humans safe, warm, cool, on time, in motion and connected. From heart monitors to satellites to cell phones to microwave ovens to synthetic fibers, chemicals

help create the innovative products that make modern life possible. In that context, blanket chemical prohibitions risk denying society the very utility and value inherent in chemicals. The key to societal benefit and value is not to prohibit chemical use, but to ensure that chemicals are used safely, the key to which is consideration of exposure. Mandating sweeping phase-outs of vast numbers of chemicals and products based solely on considerations of hazard precludes society from realizing benefits from those chemicals and products.

**CalChamber Position**

The task of chemicals management is a long-term endeavor driven by ever-changing developments in science. Regardless of the resources directed toward developing data, there will always be more questions to ask and more data to gather—it is after all the nature of the scientific process. The issue is not whether there is a data gap, but rather, how the state can manage its finite resources to best identify and prioritize the uses of the chemicals of greatest concern

in consumer products. In the current and foreseeable economic climate, California must adopt regulations that focus on exposures to substances in consumer products sold or used in the state.

The CalChamber believes that the green chemistry program should be implemented according to the following principles:

- Promote safe and sustainable products through the application of sound scientific methods of review.
- Avoid duplicative and conflicting regulatory and reporting requirements.
- Ensure protection of confidential business information.
- Use a systematic approach in which chemicals, their users and potential alternatives are first prioritized based on hazard and exposure.
- Ensure balanced consideration of the unique applications, intended function, performance and useful life of the product in question, as well as other lifecycle factors required by statute.
- Impose only cost-effective, sustainable, technologically and commercially feasible requirements.

- Minimize compliance costs and administrative burdens and protect California jobs and consumers.

- Support a transparent process in accordance with the California Administrative Procedures Act.



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