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## **Back To The Cradle: Calif. Green Chemistry Laws**

Law360, New York (December 31, 2008) -- California is nationally recognized for its role in developing groundbreaking environmental policy and standards, often galvanizing other states to implement similar measures.

Recent examples of this include enactment of comprehensive climate change legislation and an implementation plan to dramatically reduce carbon emission levels within the state by 2020; ongoing efforts to impose and enforce among the most stringent water quality objectives in the nation; and just last week, the adoption of stringent air quality rules that will require the retrofitting or replacement of aging diesel trucks beginning in 2011.

California's leadership on environmental matters now extends to the regulation of chemicals, before they become hazardous waste. In September 2008, California formally adopted a groundbreaking "green chemistry" program through the enactment of two laws, Assembly Bill 1879 and Senate Bill 509.

Through enactment of these green chemistry laws, California seeks to reduce the use of toxic chemicals in consumer products sold in California, and their associated adverse environmental and human health impacts.

California is the first (and only) state to enact such a comprehensive, "cradle-to-cradle" regulatory program for hazardous materials. Rather than managing wastes at the end of a product's lifecycle, green chemistry shifts the focus to designing chemicals, processes, and goods that have little or no adverse affects during the manufacturing, use or disposal of a product.

This is a significant departure from the traditional "cradle-to-grave" approach utilized in existing federal hazardous waste laws such as the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and the Resource Conservation and Recovery Act ("RCRA"), and their state analogs.

SB 509 and AB 1879 represent nothing short of a paradigm shift in environmental regulation of chemicals. Rather than managing chemical or hazardous wastes at the end of a product's lifecycle, the green chemistry approach shifts the focus to the design stage, promoting the formulation of chemicals and processes of goods that have little to no adverse affects on the environment or human health throughout the products' life-cycle.

### **Summary Of California's Green Chemistry Laws**

#### *Background*

California's green chemistry legislation is the result of a multi-stakeholder process that began in April 2007 — dubbed the "Green Chemistry Initiative" or GCI — spearheaded by the California Environmental Protection Agency ("CalEPA"). The GCI involved a broad coalition of representatives from industry and environmental groups, including numerous scientific experts.

The GCI public process culminated on Dec. 17, 2008, when CalEPA released its "Green Chemistry Initiative Final Report of Recommendations."

The report lays out six policy recommendations, reflecting the statutory requirements of AB 1879 and SB 509, which provide a framework for the development of regulations to implement the green chemistry legislation.

#### *Assembly Bill 1879*

AB 1879 requires the California Department of Toxic Substances Control (“DTSC”) to adopt regulations by Jan. 1, 2011, to evaluate chemicals in products to determine how best to limit exposure or reduce chemical hazards. The regulations will also evaluate potential alternatives to chemicals and potential hazards posed by such alternatives.

The core element of the law is establishing a process by which chemicals or chemical ingredients in products may be identified and prioritized for consideration as “chemicals of concern.”

As part of this process, DTSC must conduct a “multimedia life cycle evaluation” to determine whether a chemical’s production, use or disposal could have a significant adverse impact on public health or the environment through various exposure pathways.

Following completion of its multimedia evaluation, the law confers DTSC broad authority to take a range of actions deemed necessary to protect the public and the environment.

These include a no action alternative, requesting additional information, labeling requirements, imposing restrictions on, or prohibiting the use of a chemical of concern in consumer products.

DTSC is also authorized to impose requirements on manufacturers to manage a product “at the end of its useful life,” including recycling or “responsible disposal” of the product.

AB 1879 further requires DTSC to establish and appoint a “Green Ribbon Science Panel” by July 1, 2009. The panel’s duties will include providing DTSC with scientific and technical expertise in the development of green chemistry regulations.

Furthermore, AB 1879 includes trade secret provisions designed to alleviate industry concerns regarding the potential dissemination of trade secrets in the event a chemical manufacturer or laboratory is asked by DTSC to disclose information to facilitate its evaluation of a chemical or chemical ingredient.

With several exceptions, a company may designate certain information submitted to DTSC as protected by trade secrets to prevent disclosure to the public.

#### *Senate Bill 509*

SB 509, a companion law to AB 1879, requires DTSC to establish a “Toxics Information Clearinghouse” for the collection, maintenance, and distribution of chemical hazard trait information developed under the green chemistry program.

Information in the chemical database will also be shared with a “sister” agency of DTSC — the Office of Environmental Health Hazard Assessment — which is required by SB 509 to conduct its own evaluations of hazard traits and toxicological end-points of listed chemicals by Jan. 1, 2011.

Perhaps anticipating the enactment of green chemistry laws by other states and the federal government, SB 509 requires DTSC to consult with other states, the federal government, and other nations with regard to creation of a comprehensive database of chemical data.

Reflecting a desire to promote transparency and public participation, SB 509 requires the clearinghouse to be readily Web-accessible.

#### *Potential Implications Of California's Green Chemistry Laws*

Pending further developments at the federal level, the adoption of California's green chemistry legislation raises a variety of interesting issues, including:

- To what extent will California's green chemistry legislation have an immediate market effect on consumer products manufactured in or imported into the state?
- Will legal challenges, perhaps under preemption or Commerce Clause theories, be pursued as green chemistry regulations are implemented and enforced?
- How and to what extent will green chemistry laws be enforceable (and enforced) against manufacturers, suppliers and retailers of consumer products within and outside the State of California?
- How will the green chemistry laws interact with existing federal and state laws, such as TSCA and California's Proposition 65, and how much will REACH influence development of DTSC regulations?

Answers to these and other questions will begin to emerge between now and Jan. 1, 2011, but may not be fully resolved for several years.

#### **Green Chemistry In Relation To Existing Chemical Regulations**

California's enactment of green chemistry legislation has triggered the beginning of a multi-year regulatory process. Until implementing regulations are promulgated by DTSC, it is difficult to fully assess the implications for regulated businesses.

However, some preliminary observations and conclusions can be drawn, based in part on the current and developing status of chemical regulation at the federal and international levels.

#### *Toxic Substances Control Act*

California's green chemistry program is significantly more expansive than TSCA, the existing federal statute designed to address the gathering of information on and subsequent regulation of chemicals. TSCA became law in 1976 and has not been significantly amended since.

In the view of most observers, TSCA has not generated meaningful information on the overwhelming majority of chemicals and, consequently, has not significantly affected how chemicals are used in the United States.

TSCA's perceived shortcomings are attributable, in large part, to the high burden that the U.S. Environmental Protection Agency ("EPA") must meet before it can compel industry to develop and make public information on chemicals.

Specifically, in order to compel industry to develop information on chemicals that were in use when TSCA was passed, EPA must demonstrate potential risks posed by the chemical, a lack of data on the chemical, and engage in noticed rulemaking on a chemical-by-chemical basis. Critics of TSCA often cite to EPA's lack of resources to pursue such efforts.

#### *REACH*

A potential framework for green chemistry regulations can perhaps be gleaned from the E.U.'s REACH program. REACH took effect in June of 2007, and its structure and principles clearly influenced the development of California's GCI and its green chemistry legislation.

When REACH takes full effect, it will regulate every chemical and product manufactured in or imported into the E.U., and require that any chemical be registered before it is manufactured in or imported into the E.U.

REACH will likely have world-wide impacts since, based on some estimates, Europe manufactures approximately forty percent of the world's chemicals.

REACH requires that all chemicals and products manufactured in or imported into the E.U. in a quantity greater than one metric ton be registered with the European Chemical Agency ("ECHA"), created to administer the program.

The registration process requires industry to disclose chemical and product uses, risks, and potential exposure methods. Unlike TSCA, REACH shifts the burden of disclosing information to industry rather than requiring the government to make any affirmative showing.

Under REACH, ECHA and E.U. member states have the authority to designate chemicals of "very high concern." The European Chemical Agency will evaluate such chemicals to determine whether their use should be restricted or prohibited. Such restrictions may not be imposed unless approved by the European Commission.

## **Conclusion**

California's new green chemistry laws — via enactment of AB 1879 and SB 509 — have created a groundbreaking framework for regulating chemicals, including toxic substances used in products and manufacturing processes.

It appears inevitable that other states will adopt similar legislation; in fact, such efforts are well underway in several states. The Obama administration may also consider chemical regulatory reform, potentially along the lines of Europe's REACH model.

Given these developments, chemical and consumer product companies, and lawyers advising them, have a strong interest in getting directly involved in development of green chemistry policies, legislation, and regulations.

--By Peter A. Nyquist and Megan K. Hey, Alston & Bird LLP

*Peter Nyquist is a partner with Alston & Bird in the firm's Los Angeles office. Megan Hey is an associate with the firm in the L.A. office.*