California’s Safer Consumer Product Regs: Identifying safer alternatives, avoiding regrettable substitutes

Department of Toxic Substances Control

Green Chemistry

California Environmental Protection Agency
Toxins in Consumer Products: 
*The need for re-design*
What got our attention?
What got our attention?

Biomonitoring and NHANES

10 Americans

ACROSS GENERATIONS: Mothers and Daughters

DTSC
What got our attention?
What got our attention?
A response from Chemistry:

- Waste prevention
- Atom Economy
- Derivatives
- Catalysis
- Chemical Synthesis
- Solvents and Auxiliaries
- Degradation
- Renewable Feed-stocks
- Energy Efficiency
- Inherently Safer
Response from policy-makers:

REACH

Canadian Environmental Protection Act

TSCA Reform(?)

DTSC
Effect on CA policy-makers
Response of CA policy-makers:

“Single-chemical ban bills”

Support AB 1319

Protect CA's Children from BPA (Bisphenol-A)
Need for a more comprehensive solution to address toxins in products in California
CA Safer Consumer Product Laws (AB 1879 and SB 509)
Albert Einstein:
If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than five minutes.”
AB 1879 – Safer Consumer Product Regulations will require product manufacturers to ask:
Is It Necessary?
Formaldehyde
Brominated Flame Retardants
Copper in Marine Paint
Nonylphenol Ethoxylates
AB 1879:
Mandates the question, does not dictate the answer.
Overview: The Safer Consumer Products Regulations

All Chemicals
(100,000+)

Chemicals of Concern (COCs)
(~2,500)

Priority Products Requiring:
- Alternatives Analysis
- Regulatory Response(s) for selected Alternative and/or Priority Product

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March 2012
Draft Chemicals of Concern and Hazard Traits
(Approximately 2100)
April 19, 2012

Carcinogens
(1270)
Mutagens
(414)
Reproductive
(198)

Biomonitor
(153)
PBTs
(485)
Air Quality
(169)

Water Quality
(133)

EDs
(39)
Neurotoxic
(66)
Development
(66)
Chemicals of Concern

WHY

- Sends immediate signals to the marketplace
- Flexible palette for future action
- Deters regrettable substitutions
- Similar in size to existing industry lists
Overview: The Safer Consumer Products Regulations

- All Chemicals (100,000+)
- Chemicals of Concern (COCs) (~2,500)
- Products with COCs

Priority Products Requiring:
- Alternatives Analysis
- Regulatory Response(s) for selected Alternative and/or Priority Product

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March 2012
Factors to select Priority Products

- Adverse impacts of COCs in the product
- Potential exposures
- Market & household presence
- Users, uses, and applications (e.g., sensitive populations & receptors)
Overview: The Safer Consumer Products Regulations

All Chemicals
(100,000+)

Chemicals of Concern (COCs)
(~2,500)

Priority Products Requiring:
- Alternatives Analysis
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Answering the question: Is It Necessary?
Who must answer?

- AA is required if COC is above the Alternatives Analysis Threshold

- AA Threshold levels:
  - 0.01% by weight - 9 specific hazard traits (e.g., carcinogens)
  - 0.1% by weight - all other hazard traits
  - DTSC may specify lower or higher
How do they answer?

Must consider: “A-M Criteria”
A. Product function/performance
B. Useful life
C. Materials/Resource consumption
D. Water conservation
E. Water quality impacts
F. Air emissions
G. Prod., use, transp. energy inputs
H. Energy efficiency
I. Greenhouse gas emissions
J. Waste and end-of-life disposal
K. Public health impacts: sensitive sub-populations
L. Environmental impacts
M. Economic impacts
Alternatives Analysis: Quality Assurance

DTSC Review and Audit

Certified Assessors

Publically available redacted AA Reports
After the question has been answered:
Regulatory Response

- Provide Additional Information to DTSC
- Provide Additional Information to Consumer
- Additional Safety Measures
- End-of-Life
  - Product Stewardship
- Product Sales
  - Restrictions or Prohibitions
- Funding Green Chemistry Challenge Grants

Final AA Report

No Regulatory Response Needed
Practical + Meaningful + Legally Defensible
Meaningful....

- List of COC’s sends signals to the marketplace
- Products are reformulated or redesigned
- Creation of Alternatives Analysis
  - Economy
Challenges ahead:

★ Data gaps
★ First of its kind
Existing resources
Next Steps for Regulations

Spring 2012 – APA process

Fall 2012 - Adoption
Opportunity for innovation...
Just because you can't see it, doesn't mean it isn't there.
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