Protecting the Health of Alaskans and Our Future Generations Through State Chemicals Policy Reform

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Drivers for Chemicals Policy Reform

- New Science on health effects and solutions
- New Regulations from Europe
- Acknowledgement of limitations of current frameworks
- State pressure and desire to act
- Industry moving forward
Science News - September 22, 2003

Endocrine disrupters ubiquitous in U.S. homes

The air and dust inside U.S. homes are likely to contain a wide variety of chemicals and pesticides that have been identified as endocrine-disrupting compounds, according to research posted to ES&T’s Research ASAP website this week. The most comprehensive analysis conducted to date, it reveals that many people may be continually exposed to dangerous levels of toxic substances, including chemicals like DDT and PCBs, which have been banned for decades.

This study, together with other data, shows that U.S. families may have "very widespread exposures" to chemicals that could affect the health of everyone from infants to senior citizens, warns Mary Wolff, of Mount Sinai School of Medicine in New York City. Currently, the U.S. EPA has no regulatory authority over indoor air or endocrine-disrupting chemicals. The study was led by Ruthann Rudel of the Silent Spring Institute, a nonprofit organization based in Boston, Mass., as part of its ongoing Cape Cod Breast Cancer and Environment Study. The group measured concentrations of 89 suspected endocrine disrupters in air and dust samples taken from 120

Photo by Tanya Swann

With the aid of researcher Jennifer Kachajian, the Silent Spring Institute collected samples of air.
Chlorinated, Brominated, and Perfluorinated Contaminants in Livers of Polar Bears from Alaska

Kurunthachalam Kannan,*† So Hun Yun,† and Thomas J. Evans

Wadsworth Center, New York State Department of Health and Department of Environmental Health Sciences, School of Public Health, State University of New York at Albany, Empire State Plaza, Post Office Box 509, Albany, New York 12201-0509, and United States Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, Alaska 99503

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Publication Date (Web): November 1, 2005
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In 3rd Recall, Mattel Says More Toys Include Lead

By LOUISE STORY
Published: September 5, 2007

Mattel announced a global recall of 848,000 toys last night, the company's third recent recall because of hazardous levels of lead paint on toys.

The recall includes three toys sold by Fisher-Price and eight Barbie accessories, though no Barbie dolls. Most of the units recalled are Barbie accessories, and 530,000 of the toys were sold in the United States, according to Mattel. The recall echoes Mattel's announcements from last month. During the rush of holiday toy-making, three Chinese vendors outsourced the painting of drum sets, trains and playhouses to four subcontractors. The subcontractors, trying to cut costs, used lead-tainted paint instead of paint approved by Mattel.
EDITORIAL

Concerns About BPA Plastic

Published: May 20, 2008

Correction Appended

Anybody worried about the potential danger from plastic bottles and cups, especially for the very young, should take note. The Canadian government has announced plans to restrict the use of bisphenol-A, or BPA, a chemical used to make hardened plastics. The government would prohibit the sale of baby bottles made with BPA. (Those are the ones with the numeral 7 in the triangle stamp on the bottom).

The Board Blog

Additional commentary,

Last month, the United States National Toxicology Program, which assesses the health effects of chemicals, also raised concerns about the potential “neural and behavioral” effects of BPA on all humans, but especially on
IT'S A BETTER DAY.
FOR YOU AND YOUR FAMILY.

THE BPA-FREE CAMELBAK® BETTER BOTTLE.
ONE LESS THING TO WORRY ABOUT.

The BPA-free CamelBak Better Bottle is the first clear, reusable water bottle that’s free of the chemical called Bisphenol A (BPA) traditionally used in hard plastic bottles.

CHOOSE TO RE-USE

BUY NOW

SPREAD THE WORD

WHY BPA-FREE?
The problems of environmental exposures to toxics and other hazards

- Rising rates of chronic disease in developed world – chemicals linked to at least 180 different chronic illnesses (www.healthandenvironment.org)
- 216 mammary carcinogens in the literature
- Rising rates of asthma, certain cancers, and learning and behavioral disorders
- Reproductive disorders on the rise
- Can’t be explained by simply better detection or genes
- Hundreds of chemicals in each of our bodies and in the womb (“chemical soup”)
Evolving Chemicals Management Challenges

- From Large Industrial Emissions…
  - Point sources, facility specific, media specific (air, water, waste)
  - Few identified chemicals of concern
  - Policy tools: End-of-pipe controls, permitting, monitoring, risk-based standards

- To a Broad Range of Product-Based Emissions.
  - Smaller, disperse, non-point, difficult to control, different toxicological mechanisms
  - Many identified chemicals of concern
  - Policy tools: Redesign, green chemistry, substitution, safer alternatives
Problems of chemicals management

1. Lack of information on chemicals in commerce
2. Grandfathering of most chemicals in commerce – assume safe until demonstrated harmful
3. Slow, inefficient chemical by chemical risk assessment/management processes
4. Lack of public confidence in government and industry
5. Lack of incentives to stimulate development of safer substitutes
Results of Current Challenges and Limits

- Lack of evidence and information being (mis-) interpreted as evidence of safety.
- Uncertainty in risk assessments a reason for more study and delay. De facto presumption of harmlessness and more uncertainty leads to more study.
- Problem focused - failure to consider alternatives and design. Focus on chemical by chemical assessments of “acceptability” of risks, a costly and slow process.
- While continued research will help fill knowledge gaps, government officials have a responsibility to act to reduce hazards when sufficient evidence of possible harm exists.
REACH – in force 1 June 2007

• Single coherent system for new (non phase-in) and existing (phase-in) chemicals

• Elements:
  – Registration of substances ≥ 1 tonne/yr (staggered deadlines)
  – More information and better communication through the supply chain
  – Evaluation of some substances by European Chemicals Agency (MS support for substance evaluation)
  – Authorisation only for ‘Substances of Very High Concern’ (SVHC)
  – Restrictions - the safety net
  – Agency to manage system

• Focus on priorities:
  – high volumes (early deadline)
  – greatest concern (CMRs and high volume R50/53 early)
  – Establishes new European Chemicals Agency (ECHA)
Lack of Federal Momentum - TSCA

- 30 year old law in need of review – little federal initiative to review
- Lack of data on chemicals
  - Relatively high burden to require testing = mandated testing on few existing chemicals.
  - Minimal chemical use/exposure data
- Chemical by chemical burdensome risk assessment/risk management processes
  - 95%+ by volume of chemicals “grandfathered” under TSCA with little review
  - Very high burden to issue restrictions on existing chemicals
- Some good work on prevention side.
- Other statutes such as CPSA/FFDCA even more concerning
Current EPA initiatives on green chemistry and safer alternatives

- Advancing data transparency
  - Changes to Confidential Business information requirements
  - Posting of TSCA inventory on-line
  - Inventory Update Rule changes
- Additional chemical testing rules
- Chemical action plans for chemicals of concern
- Advancing safer chemistry through Design for Environment
  - Formulators initiative
  - Partnership programs for informed substitution.
Essential Principles for Reform of Chemicals Management Legislation

The U.S. Environmental Protection Agency (EPA) is committed to working with the Congress, members of the public, the environmental community, and the chemical industry to reauthorize the Toxic Substances Control Act (TSCA). The Administration believes it is important to work together to quickly modernize and strengthen the tools available in TSCA to increase confidence that chemicals used in commerce, which are vital to our Nation’s economy, are safe and do not endanger the public health and welfare of consumers, workers, and especially sensitive sub-populations such as children, or the environment.

The following essential Principles for Reform of Chemicals Management Legislation (Principles) are provided to help inform efforts underway in this Congress to reauthorize and significantly strengthen the effectiveness of TSCA. These Principles present Administration goals for updated legislation that will give EPA the mechanisms and authorities to expeditiously target chemicals of concern and promptly assess and regulate new and existing chemicals.

**Principle No. 1: Chemicals Should be Reviewed Against Safety Standards that are Based on Sound Science and Reflect Risk-based Criteria Protective of Human Health and the Environment.**

EPA should have clear authority to establish safety standards that are based on scientific risk assessments. Sound science should be the basis for the assessment of chemical risks, while recognizing the need to assess and manage risk in the face of uncertainty.

**Principle No. 2: Manufacturers Should Provide EPA with the Necessary Information to Conclude That New and Existing Chemicals are Safe and Do Not Endanger Public Health or the Environment.**

Manufacturers should be required to provide sufficient hazard, exposure, and use data for a chemical to support a determination by the Agency that the chemical meets the safety standard. Exposure and hazard assessments from manufacturers should be required to include a thorough review of the chemical’s risks to sensitive subpopulations.

Where manufacturers do not submit sufficient information, EPA should have the necessary authority and tools, such as data call in, to quickly and efficiently require testing or obtain other information from manufacturers that is relevant to determining the safety of chemicals. EPA should also be provided the necessary authority to efficiently follow up on chemicals which have been previously assessed (e.g., requiring additional data or testing, or taking action to reduce risk) if there is a change...
To amend the Toxic Substances Control Act to ensure that risks from chemicals are adequately understood and managed, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. LAUTENBERG introduced the following bill; which was read twice and referred to the Committee on

A BILL

To amend the Toxic Substances Control Act to ensure that risks from chemicals are adequately understood and managed, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Safe Chemicals Act of 2010”.

SEC. 2. PURPOSES.

It is the purpose of this Act to ensure that risks from chemicals are adequately understood and managed.
Legislation – National Consumer Product Safety

One Hundred Tenth Congress of the United States of America

AT THE SECOND SESSION

Began and held at the City of Washington on Thursday, the third day of January, two thousand and eight

An Act

To establish consumer product safety standards and other safety requirements for children’s products and to reauthorize and modernize the Consumer Product Safety Commission.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “Consumer Product Safety Improvement Act of 2008”.

(b) TABLE OF CONTENTS.—The table of contents for this Act
US States and localities contemplating broad chemicals policy reforms

- States can go beyond federal regulation with regards to managing industrial chemicals.
- Several states have initiated chemicals policy reforms – ME, MI, MN, CA, WA, CT, MA
- Several local governments have initiated chemicals policy requirements: San Francisco, Seattle, Buffalo, Boston
- States beginning to collaborate together: Interstate Clearinghouse on Chemicals
Chemicals Policy Activities at the State Level

- Policy initiatives differ by state
  - Chemical prioritization and ingredient disclosure
  - Pollution Prevention/Toxics Use Reduction
  - PBT policies
  - Single Chemical Restrictions – Hg, PBDEs, Pb, phthalates, bisphenol-a, Cd
  - Preferable Purchasing
  - Multi-chemical policies – Alternatives assessment
  - Green chemistry/clean tech
State Chemicals Policy
2009-2010 Legislative Session

- Single Chemical Restrictions
  - Bisphenol A—7 states, 4 counties, 1 city enacted; 19 states, the District of Columbia, 1 county, 1 city proposed
  - Cadmium—4 state enacted, 4 states proposed
  - Lead—4 states enacted, 9 states and District of Columbia proposed
  - PBDEs—4 states enacted, 12 states proposed

- Product Categories
  - Cleaning Products—5 states enacted, 13 states proposed
  - Children’s Products and Toys—3 states enacted, 24 states proposed
  - Cosmetics—9 states proposed

- Comprehensive Policies to Identify, Prioritize, and Manage Chemicals of Concern
  - 2 states enacted (MN and ME), 10 states proposed

- Green Chemistry
  - CT—Enacted legislation to establish Chemical Innovations Institute
  - MN enacted and MI proposed legislation to incorporate definitions of green chemistry into economic development policies

- Funding for Interstate Clearinghouse on Chemicals
In response to continued public concern over the presence of dangerous chemicals in common household products, coupled with Congressional inaction on the matter, on Wednesday, January 19, legislators and advocates in thirty states across the country and the District of Columbia will announce legislation aimed at protecting children and families from harmful chemicals.
State Chemicals Policy Implementation

- **Maine’s Toxic Chemicals in Children’s Products Law**
  - July 2009—Published list of ~1,700 chemicals of high concern
  - Proposed bisphenol A and nonylphenol/nonylphenol ethoxalates for designation as priority chemicals

- **Washington’s Children’s Safe Products Act**
  - July 2009—Published list of 2,044 high priority chemicals
  - January 2010—Published draft reporting list of 66 chemicals of high concern to children

- **Minnesota’s Toxic Free Kids Act**
  - July 2010—Published list of ~1,700 chemicals of high concern
State “Comprehensive” Policies—Key Authorities – ME and WA

**Maine**
- Prioritization—Identify chemicals of high concern, priority chemicals
- Data Collection
- Alternatives Assessment
- Management Activities
  - Ban
  - Substitution—Compliance Plans

**Washington**
- Prioritization—Identify high priority chemicals, chemicals of high concern to children
- Data Collection
The database can be searched by state, region, status (e.g., enacted, proposed, and failed), policy category (e.g., pollution prevention, single chemical restriction, etc.), chemical, and product type (e.g., children's products, cleaning products, etc.).

To search the database, use the six pull-down menus below to make selections in one or more of the pull-down menus. When making selections in multiple pull-down menus, the results will include only entries that contain all of the selections highlighted. The database can also be searched by making multiple selections from one pull-down menu. In order to select more than one item in each menu, hold down the command key (Mac) or control key (PC) while making the selections. When making multiple selections in one pull-down menu, the results will include entries that contain any of the selections highlighted.

Additionally, the entire database can be searched by entering a bill number, word, or phrase into the box located below the pull-down menus. This will search the full database entries of each policy for the entered word or phrase, although it will not return results where the entered word or phrase is found solely in the full text document (word or pdf) of the policy.

To print the results of the search, click on the print icon located at the top of the returned results. To search again, click on “new search” located below each entry to reset the menus.

To let us know about legislation or policies that are not represented in the database, any mistakes in the entries, or if you have any other comments, please click here.

Passed and pending state level chemicals legislation:

To select more than one item in each list, hold down the command key (Mac) or control key (PC) while making your selections.

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PLEASE NOTE: Legislative Information cannot perform research, provide legal advice, or interpret Maine law. For legal assistance, please contact a qualified attorney.

An Act To Protect Children's Health and the Environment from Toxic Chemicals in Toys and Children's Products

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 38 MRSA §1609, sub-§10, as enacted by PL 2007, c. 296, §1, is repealed.

Sec. 2. 38 MRSA c. 16-D is enacted to read:

CHAPTER 16-D

TOXIC CHEMICALS IN CHILDREN'S PRODUCTS

§ 1691. Definitions

As used in this chapter, unless the context otherwise indicates, the following terms have the following meanings.

1. Alternative. "Alternative" means a substitute process, product, material, chemical, strategy or combination of these that serves a functionally equivalent purpose to a chemical in a children's product.

2. Chemical. "Chemical" means a substance with a distinct molecular composition or a group of structurally related substances and includes the breakdown products of the substance or substances that form through decomposition, degradation or metabolism.
California Green Chemistry Initiative
A Year of Exploration

- 2006 ---University of California, Berkeley publishes Green Chemistry Policy Report
  - Identifies three gaps: Data, Safety and Technology
- April, 2007---Department of Toxic Substances Control launches the state Green Chemical Initiative
  - Phase One
    - Sponsor workshops and symposia
    - Hosts “A Conversation with California” an on-line blog
  - Phase Two
    - Holds public workshops and discussion fora
    - Convenes a Science Advisory Panel
    - Sets up “Key Element Teams”
California Green Chemistry Initiative
Final Report

- Expand Pollution Prevention
- Develop Education and Training, Research and Development and Technology Transfer
- Create an On-Line Product Ingredient Network
- Create an On-Line Toxics Clearinghouse
- Accelerate the Quest for Safer Products
- Move Towards a Cradle to Cradle Economy
New! California Green Chemistry Wiki
Participate in the Green Chemistry Wiki! This innovative tool was created to spur informal collaboration on the Safer Alternatives Regulations development process. News Release
The Green Chemistry rule development process will detail how DTSC implements Assembly Bill 1879 and Senate Bill 509.

News on California's Green Chemistry Initiative
Find recent news and videos on California's Green Chemistry Initiative. Find out what others are saying about Green Chemistry.

Green Ribbon Science Panel
New! Green Ribbon Science Panel Agenda released! View the public notice on the Green Ribbon Science Panel meeting. View the latest (April 27, 2009) background information and staff presentations/additional documents provided to the panel members. Read about California's new Green Ribbon Science Panel or view the news release on the panel members.
Two of the six recommendations are being implemented by statutes passed in 2008.

AB 1879 requires the state to identify chemicals of high concern in products, to evaluate alternatives, and to specify appropriate regulatory responses.

SB 509 requires the state to establish a public, on-line Toxics Information Clearinghouse on the hazards of chemicals found in products.
California’s Safer Consumer Product Alternatives

- September 2010—DTSC Proposed regulations that create a process for identifying and prioritizing chemicals and products of concern and methods for analyzing alternatives to existing hazardous chemicals.
  - Consideration of use in products, vulnerable populations
  - Consideration of lifecycle impacts of products
- September 2010 – OEHHA proposes draft “hazard-traits” to be included in toxics clearinghouse
- November 2010 – revised Safer Products Regulations published
- January 2011 – process put on hold pending new discussions
EXECUTIVE DIRECTIVE No. 2006-6

ROMOTION OF GREEN CHEMISTRY FOR SUSTAINABLE ECONOMIC DEVELOPMENT AND PROTECTION OF PUBLIC HEALTH

WHEREAS, Section 1 of Article V of the Michigan Constitution of 1963 vests the executive power of the State of Michigan in the Governor;

WHEREAS, under Section 8 of Article V of the Michigan Constitution of 1963 each principal department of state government is under the supervision of the Governor unless otherwise provided by the Constitution;

WHEREAS, Section 52 of Article IV of the Michigan Constitution of 1963 declares that the public health and general welfare of the People of the State of Michigan are matters of primary concern;

WHEREAS, the use by persons and entities in Michigan of hazardous substances that can threaten human health and our environment should be reduced;

WHEREAS, “green chemistry” is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances;

WHEREAS, “green chemistry” can be an effective approach to pollution prevention because it applies innovative scientific solutions to real-world environmental situations;

WHEREAS, the field of “green chemistry” holds promise as a way to both reduce the use of hazardous substances and to promote sustainable economic development in Michigan;

NOW, THEREFORE, I, JENNIFER M. GRANHOLM, Governor of the State of Michigan, by virtue of the power and authority vested in the Governor by the Michigan Constitution of 1963, direct the following:

DEFINITIONS

As used in this Directive:
2. “Green chemistry” means chemistry and chemical engineering to design chemical products and processes that reduce or eliminate the use or generation of hazardous substances producing high quality products through safe and efficient manufacturing processes. Green chemistry is based upon the following 12 principles:
   a. Prevent waste: Design chemical syntheses to prevent waste, leaving no waste to treat or clean up.
   b. Design safer chemicals and products: Design chemical products to be fully effective, yet have little or no toxicity.
In the Year Two Thousand and Seven.

AN ACT FOR A HEALTHY MASSACHUSETTS SAFER ALTERNATIVES TO TOXIC CHEMICALS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Title. This Act shall be known and may be cited as “An Act for a Healthy Massachusetts: Safer Alternatives to Toxic Chemicals.”

2 SECTION 2. Legislative findings.
Whereas, Article 97 of the Constitution of Massachusetts provides that the people shall have the right to clean air and water; and
Whereas, scientific evidence increasingly links many chronic diseases with repeated and increased exposure to toxic substances. These diseases and disorders include: asthma, autism, birth defects, cancers, developmental disabilities, diabetes, and neurodevelopmental disorders. Further, it shall be the purpose of this Act...
Massachusetts Toxics Use Reduction Program

- Every year: Materials Accounting requirements and fee on chemical use
- Every two years: Required toxics use reduction plan, certified by trained planner
  - Understand function and use of chemicals
  - Examine alternatives
  - Analyze cost of and technical feasibility of alternatives
  - Measure progress and re-evaluate
- Fee on chemicals funds regulatory program, confidential technical support and research and education programs
TURA Results

- Adjusting for 21% decline in production, Core TURA filers from 2000-2008 reduced:
  - Toxic chemical use by 20%
  - Toxic chemical waste by 33%
  - Toxic chemicals shipped in product by 19%
  - Toxic chemical releases by 52%
  - Offsite waste transfers by 39%

- Updates: Higher hazard chemicals list; allowance to do resource conservation planning every other TUR planning cycle
E DIRECTIVE No. 2006-6

OF GREEN CHEMISTRY FOR SUSTAINABLE ECONOMIC DEVELOPMENT AND PROTECTION OF PUBLIC HEALTH

Section 1 of Article V of the Michigan Constitution of 1963 vests the executive power of the State of Michigan in the Governor,

under Section 8 of Article V of the Michigan Constitution of 1963 each principal department of state government is under the supervision of the Governor unless otherwise provided by law.

Section 52 of Article IV of the Michigan Constitution of 1963 declares that the public health and general welfare of the People of the State of Michigan are matters of primary importance in the use by persons and entities in Michigan of hazardous substances that can threaten human health and our environment should be reduced;

green chemistry" is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances:

"green chemistry" can be an effective approach to pollution prevention because it applies innovative scientific solutions to real-world environmental situations;

the field of "green chemistry" holds promise as a way to both reduce the use of hazardous substances and to promote sustainable economic development in Michigan;

WHEREAS, I, JENNIFER M. GRANHOLM, Governor of the State of Michigan, by virtue of the power and authority vested in the Governor by the Michigan Constitution of 1963, direct the following

Directive:

of Environmental Quality" means the principal department of state government created under Executive Order 1995-18, MCL 324.9903.

"green chemistry" means chemistry and chemical engineering to design chemical products and processes that reduce or eliminate the use or generation of hazardous substances;

quality products through safe and efficient manufacturing processes. Green chemistry is based upon the following 12 principles:

1. Design chemical syntheses to prevent waste, leaving no waste to treat or clean up.

2. Use chemicals and products: Design chemical products to be fully effective, yet have little or no toxicity.
Michigan

- May 2008, DEQ appoints the Green Chemistry Roundtable
- September 2008, Action plan to implement the Directive released
  - MI Green Chemistry conference 2009 & 2010
  - MI Green Chemistry awards 2009 & 2010
  - Clearinghouse grant awarded Aug 30, 2010
  - Education grants awarded to 3 universities to develop green chemistry seminar courses
  - Long term fundraising grant awarded 2009
  - Green chemistry grant opportunities for small manufacturing companies 2010
- May 2009, 3 bills HB 4817, 4818, 4819 passed the house and were referred to senate committee. These expand the definitions in Michigan’s economic development statutes to advance Green Chemistry.
Draft document, “Options for Green Chemistry” published on September 30 mandated by Toxic Free Kids Act; Final report due to Legislature by December 15. Summarizes options for promoting and providing incentives for green chemistry in Minnesota, and potential mechanisms for funding those options.

Focus on integration into existing P2 program to focus on Priority or High Concern chemicals

Key options considered include:

- Working with the private sector to maximize market mechanisms that support green chemistry;
- Maximizing the power of supply chains, no matter where Minnesota companies are situated in those chains;
- Increasing state support for research into safer alternatives;
- Use of State grants and loans to widen the application of safer alternatives by Minnesota businesses;
- Using State fees and taxes to promote reduced use of Priority or High Concern chemicals, and tax credits and performance-based fees to promote use of safer alternatives;
Connecticut

- Public Act #164 established the Chemical Innovations Institute at the University of CT in June 2010 (no funding).
- Duties include: provide information on chemicals and their impacts; provide research and technical assistance regarding chemicals of concern to the public health and environment and provide alternatives, coordinate and share information with institutions in other states,
- 8 member Board of Directors being appointed and institute will seek funding from the federal government and other funding sources.
- Current projects include the Green Cleaning Project – a study of the health effects of workers who use cleaning products.
Oregon Environmental Council (OEC) convened the Oregon Green Chemistry Advisory Group (OGCAG) comprised of leaders from industry, academia, public agencies, and NGOs to explore how green chemistry could be strengthened in the state.

Four key recommendations:
• Increase understanding and awareness of the benefits of using green chemistry among key decision makers.
• Enhance Oregon’s existing and future workforce through education and training that supports the use of green chemistry.
• Expand Oregon’s public and private green chemistry research and development capacity.
• Commit state and local resources to support green chemistry innovation.

Goal to form a statewide green chemistry “Hub”
Industry moving ahead of governments

- In absence of government policy many firms beginning to use market forces due to:
  - Consumer Pressure
  - Mishaps
  - Customer demands
  - Marketplace demands

- Sectors working together to solve mutual problems

- Working beyond regulations

- Yet, leaders encountering similar problems as governments.
Industry efforts to advance safer chemistry

- Tools to assess and prioritize chemicals and products
- Restricted Substances Lists
- Reformulation of products and product design strategies to eliminate chemicals of concern
- Ingredient disclosure
- Chemical use policies
American Apparel & Footwear Association

Restricted Substances List (RSL)

February 2009
Release 2

To download a copy of the RSL Introduction 2007 Final Release 2, please click HERE.
To download a copy of the AAFA RSL Final Release 2, please click HERE.
To receive updated information, including future RSL releases, please click HERE.
To download a list of AAFA member companies who test for restricted substances on the RSL, please click HERE.

Introduction

This Restricted Substances List (RSL) was created by a special working group of the American Apparel & Footwear Association’s (AAFA) Environmental Task Force. The RSL is intended to provide apparel and footwear companies with information related to regulations and laws that restrict or ban certain chemicals and substances in finished home textile, apparel, and footwear products around the world.

It is our hope that this RSL will serve as a practical tool to help those individuals in textile, apparel and footwear companies, and their suppliers, responsible for environmental compliance throughout the supply chain, to become more aware of various national regulations governing the amount of substances that are permitted in finished home textile, apparel and footwear products.

Our effort is to create a dynamic and useful instrument. The RSL will be updated on a regular basis and will be supplemented with additional resources to help officials in these companies undertake responsible chemical management practices in the aforementioned finished products.
GreenWERCS Chemical Screening Tool

- Analyzes the composition of individual products from ingredient data entered by manufacturers
- Identify and reduce chemically hazardous products
- Helps make informed decisions based on:
  - Chemicals harmful to human health
  - Chemicals harmful to the environment
  - Sustainability goals
Chemicals, alone or in combination, are the platform upon which key elements of the global economy have been built, and have been incorporated into millions of products used every day. Many chemicals may have inherently harmful characteristics that can impact ecological and human systems as they are used throughout supply chains.

A growing number of companies are discovering that the approaches of green chemistry and Design for Environment (DfE) allow for a transition to safer alternatives. The Green Chemistry and Commerce Council provides open conversation about the challenges to and opportunities for this successful transition.
Growing the Green Economy Through Green Chemistry and Design for the Environment

“...In a few decades it won't be special anymore...Everyone will be doing green chemistry.”
Professor Robert H. Crabtree
Yale University
Chemistry Department
Needed features of chemicals policies

- Comprehensive approach to all chemicals
- Move away from chemical-by-chemical approaches
  - Single-chemical bans
  - Risk assessment seeking to reduce risks to “acceptable” levels
- Establish processes for rapid chemical prioritization and assessment
- Maximize information generation/sharing
- Establish processes to replace dangerous chemicals with safer alternatives
- Promote green chemistry and safer product design, by promoting research and innovation
- Regulate based on intrinsic hazard and uses, functions, and potential exposures

Lowell Center for Sustainable Production
Core policy “modules” for Chemicals
Policy Reform

- Testing and information generation
- Information flow in supply chains, to the public
- Prioritization, assessment and decision-making
- Chemical substitution and alternatives assessment
- Innovation and Green Chemistry
- Program administration and implementation

Lowell Center for Sustainable Production
Options for State Chemicals Policy Reform

A Resource Guide

January 2008

Lowell Center for Sustainable Production
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Areas of increased collaboration between states

- Mercury – IMERC
- Alternatives Assessment – Alternatives Assessment WIKI
- Interstate Chemicals Clearinghouse (IC2)
- TSCA reform discussions
- Occurring to date mostly ad hoc but growing formality.
Lessons from the States

- States have been innovators and have less “worry” about jurisdictional boundaries
- Highly organized, diverse policy coalitions.
- More states are proposing/implementing single chemical or comprehensive chemical product restrictions.
  - Shift from “toxics policy” to “chemicals policy.”
  - From a “phase-out” to a “phase-in” mentality
- Greater focus on alternatives assessment than risk assessment
- Limited resources means more attention to expedited chemicals assessment, prioritization, and decision-making processes
State Strengths and Weaknesses

- **Strengths**
  - Long histories of industry support for pollution prevention – knowledge of firms
  - Connection to academic institutions
  - Ability to innovate beyond jurisdictional boundaries
  - Ability to collaborate with other states

- **Weaknesses**
  - Funds available
  - Challenges of implementation (prioritization, defining safer, lack of data on uses/toxicity)
  - Lack of data/expertise/resources
  - Hard to influence out of state market actors/understand material flows
An opportunity for Alaksa

- Changes are occurring at the state level and in the market place while slower federal change.
- States have been and continue to be leaders in chemicals management policies.
- Given its unique global position as a “recipient” of persistent and bioaccumulative toxics and its dependency on natural resources, AK should be a leader in safer chemistry.
- Challenges mean big system changes – boundary changes won’t be sufficient.
- Will require new collaborations and foci – such as green chemistry and clean tech and relationships with new stakeholders such as universities.