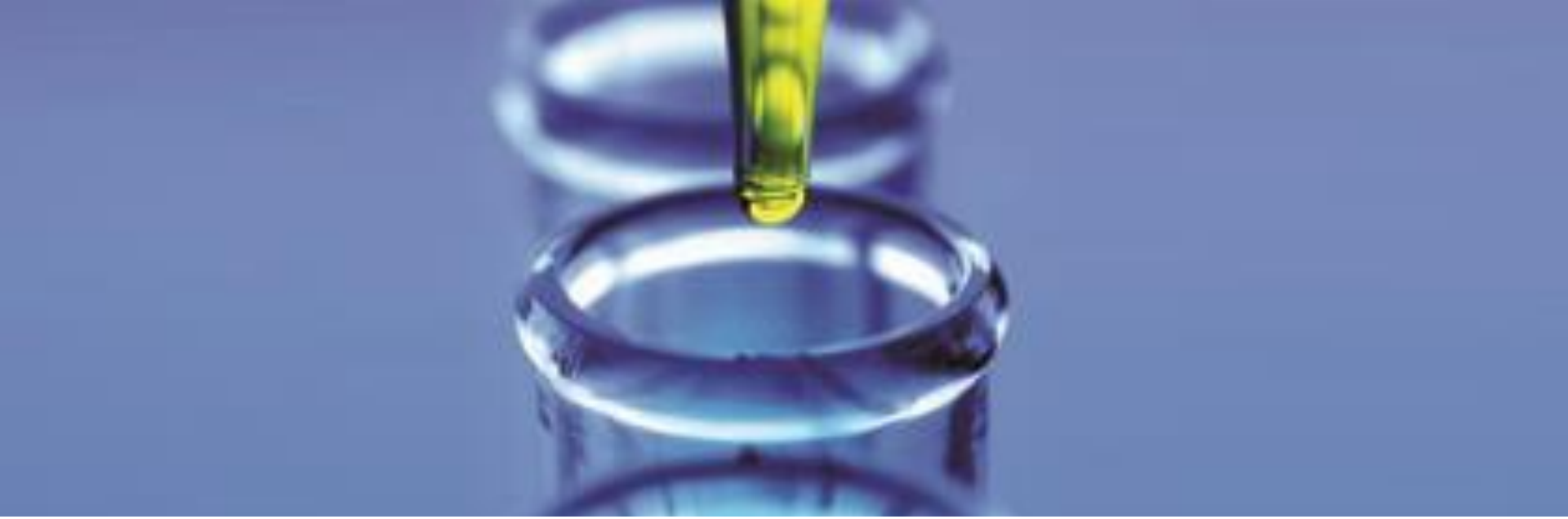


Safer Consumer Products Regulations

National Pollution Prevention Roundtable Webinar

April 17, 2014

Karl Palmer, Chief

Safer Consumer Products Branch

California Environmental Protection Agency

SAFER CONSUMER PRODUCTS

Department of Toxic Substances Control

Today I will address:

- California's Safer Consumer Products Program
  - Fundamental Approach
  - Proposed Priority Products
  - Alternatives Analysis process
  - Regulatory Response options
  - What's next and time lines….

SAFER CONSUMER PRODUCTS

DTSC

What We Need

- A comprehensive solution to address toxics in products.
- An ability to avoid regrettable substitutions.

SAFER CONSUMER PRODUCTS

DTSC

The Goal:

- Safer consumer products.

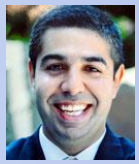
- Greater market opportunities for innovative companies

- Healthier us!

SAFER CONSUMER PRODUCTS

DTSC

2007-2013: California's Approach



Green Chemistry Report

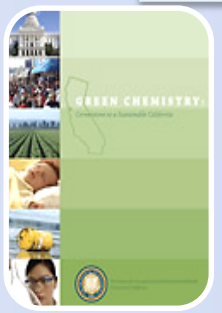
Green Chemistry Options

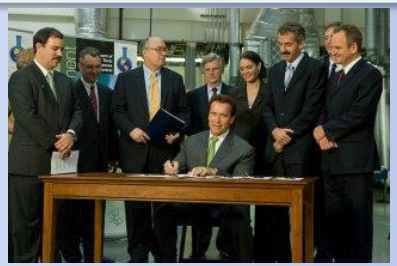
Policy Thinking

2010 Draft Regulations

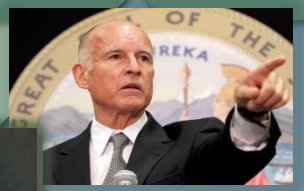
2012 Draft Regulations

2013 Safer Consumer Products Regulations





AB 1879/ SB 509
Statutory Authority



SAFER CONSUMER PRODUCTS

DTSC

California's Safer Consumer Products Regulations:

Product Designers must answer the question:

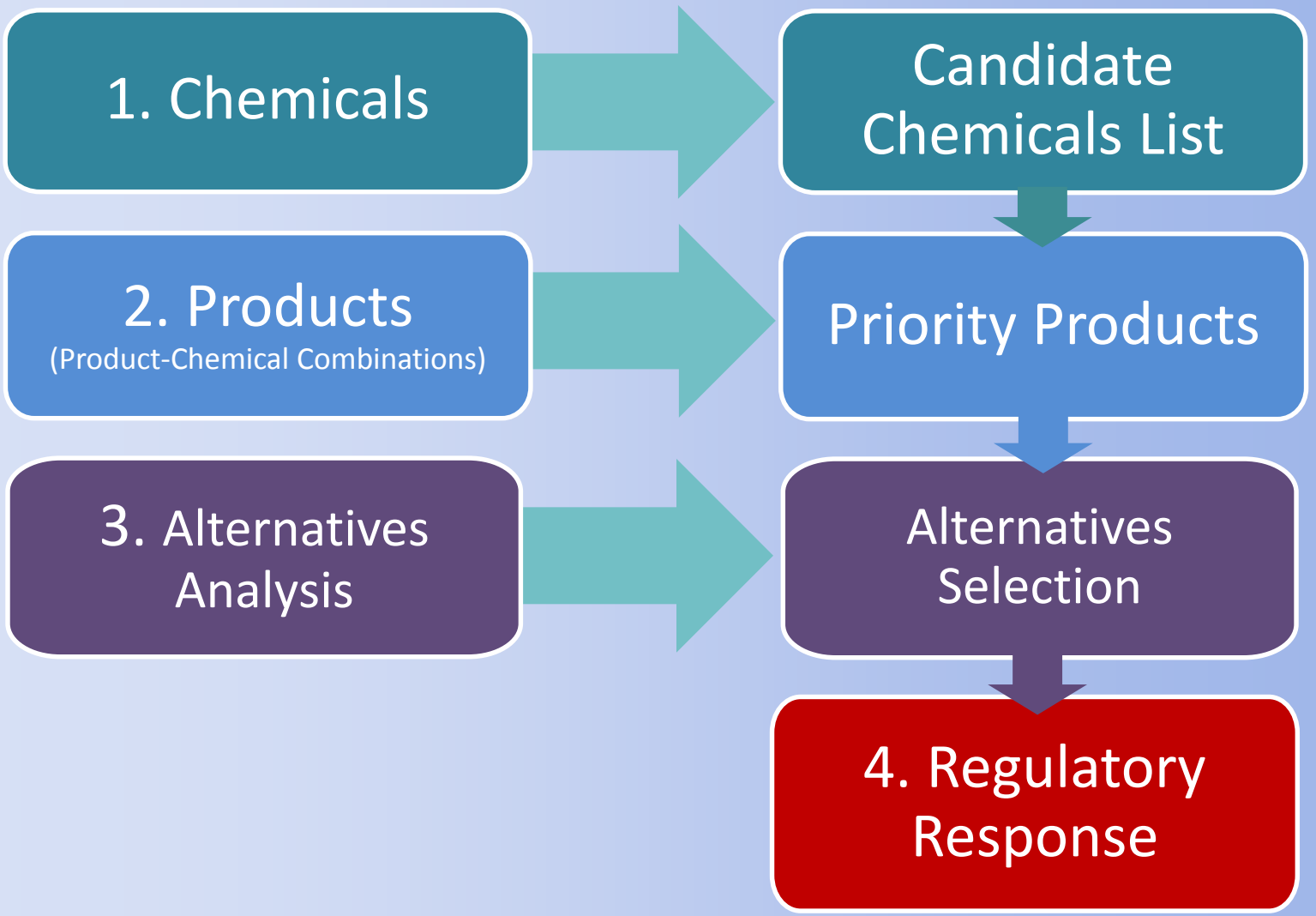
- Is it necessary ?

  (Is there a safer alternative?)

SAFER CONSUMER PRODUCTS

DTSC

How It Works: The SCP Regulations



SAFER CONSUMER PRODUCTS

DTSC

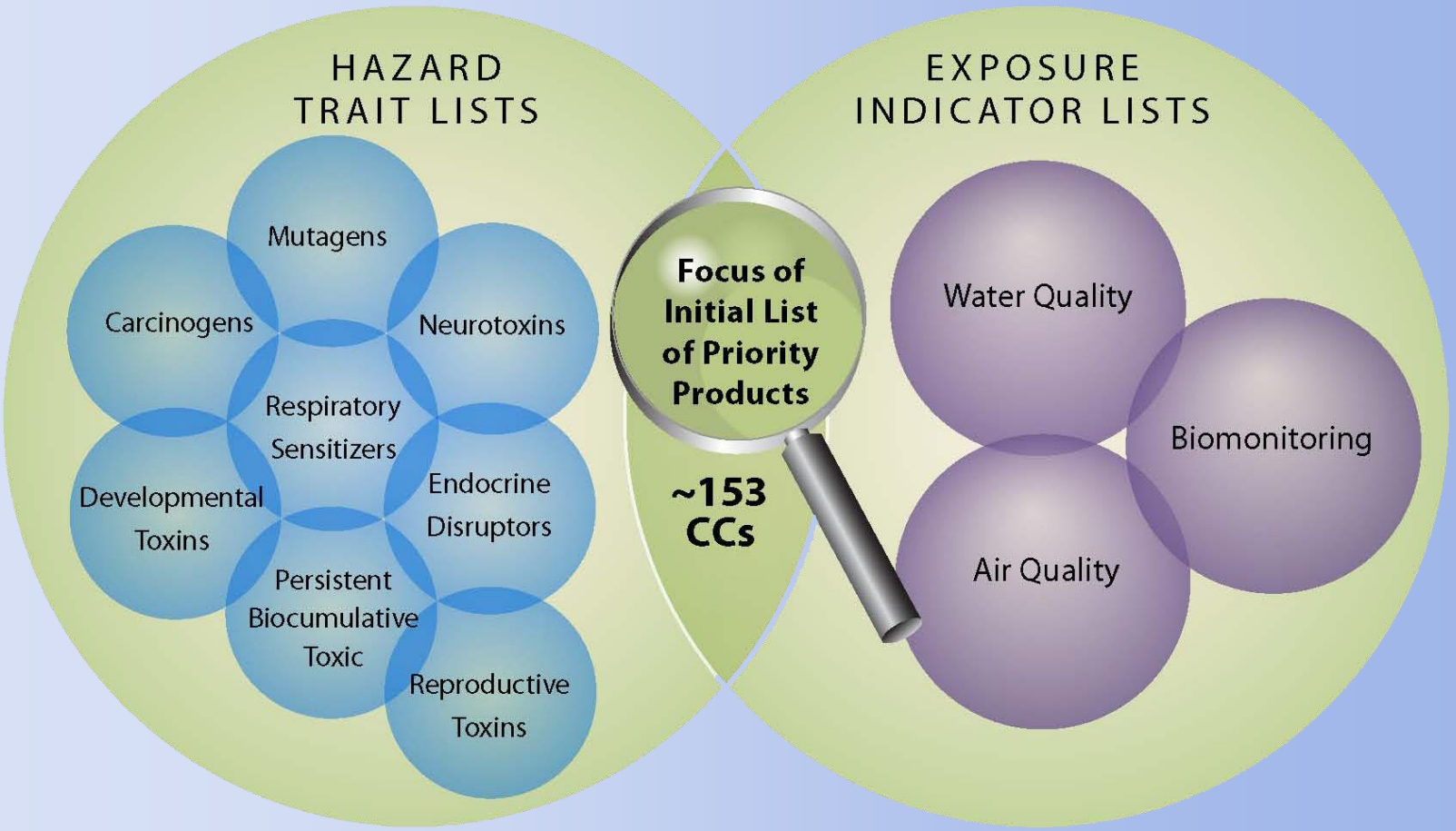
1 Candidate Chemicals Identification

2. Identify Priority Products with Chemicals of Concern
3. Alternatives Analysis
4. Regulatory Response

SAFER CONSUMER PRODUCTS

DTSC

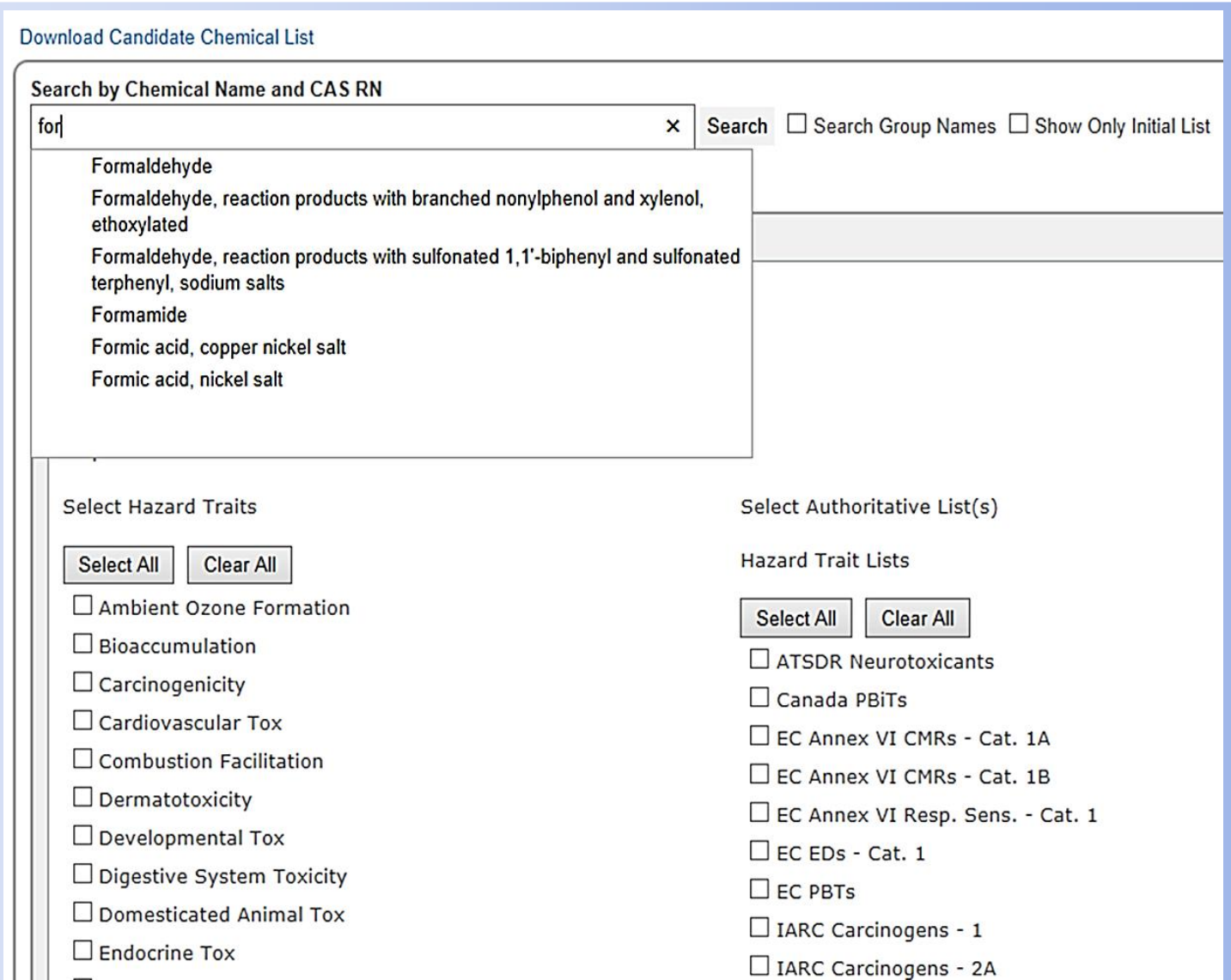
List of Candidate Chemicals: ~1,100



SAFER CONSUMER PRODUCTS

DTSC

Searchable Candidate Chemical Database



SAFER CONSUMER PRODUCTS

DTSC

Details Page

Candidate Chemical Details

New Search | Chemical Lists Homepage | SCP Website | FAQ

<< Back

Candidate Chemical Name:	Bis(2-chloro-1-methylethyl)ether,technical grade
CAS RN:	108-60-1
On Initial List:	Yes
Chemical Group Name:	NONE
Other Group Members:	NONE

Basis For Listing:

Hazard Traits	Authoritative Lists
Carcinogenicity	Prop 65 (4/19/13) Chemicals known to cause cancer and/or reproductive toxicity that are listed under Health and Safety Code section 25249.8 of the California Safe Drinking Water and Toxic Enforcement Act of 1986
Hematotox	CWA 303(c) (7/1/2011) Chemicals that are identified as priority pollutants in California Water Quality Control Plans under section 303(c) of the federal Clean Water Act and in section 131.38 of title 40 of the Code of Federal Regulations, or identified as pollutants by California or the United States Environmental Protection Agency for one or more water bodies in California under section 303(d) of the federal Clean Water Act and section 130.7 of title 40 of the Code of Federal Regulations

SAFER CONSUMER PRODUCTS

DTSC

1. Candidate Chemical Selection

2 Identify Priority Products with Chemicals of Concern

3. Alternatives Analysis

4. Regulatory Response

SAFER CONSUMER PRODUCTS

DTSC

Key Prioritization Principles

For each listed Priority Product there must be:

- Potential exposure(s) to the Candidate Chemicals in the product

AND

- Potential for exposures to contribute to or cause **significant or widespread adverse impacts**

SAFER CONSUMER PRODUCTS

DTSC

Initial Priority Products

- **What did DTSC pick for the first round of products?**
- **Why did DTSC pick them?**

SAFER CONSUMER PRODUCTS

DTSC

Initial Priority Products Id'ed
March 13, 2014

The products:

- Children's Foam Padded Sleep Products with TDCPP (Chlorinated Tris)
- Paint Strippers and Surface Cleaners with Methylene Chloride
- Spray Polyurethane Foam Systems with Unreacted Diisocyanates.

SAFER CONSUMER PRODUCTS

DTSC

Children's Foam Padded Sleeping products containing TDCPP

The products

- Nap mats & cots
- Sleep positioners
- Travel Beds
- Car bed pads
- Portable crib pads
- Bassinet foam
- Play pens or play yards

The chemical

- Chlorinated Tris or TDCPP
- A flame retardant

SAFER CONSUMER PRODUCTS

DTSC

Why Did We Pick Children's Foam-Padded Sleep Mats with TDCPP?

Hazard

- Known carcinogen
- Endocrine disruptor

Exposure

Who

- Children and infants

How

- Dust inhalation while sleeping
- Skin absorption

Alternatives

- Flame Retardant not required by law

SAFER CONSUMER PRODUCTS

DTSC

Why Did We Pick Them?

Paint & Varnish Strippers with Methylene Chloride

SAFER CONSUMER PRODUCTS

DTSC

Paint and Varnish Strippers containing Methylene Chloride

The products

- Paint strippers
- Varnish removers

The chemical

- Methylene chloride solvent

SAFER CONSUMER PRODUCTS

DTSC

Paint and Varnish Strippers containing Methylene Chloride

- Hazard
  - Toxic to the nervous system
  - Metabolized to carbon monoxide
  - Carcinogen
- Exposure

  Who: Workers, DIYers

  How: Inhalation especially with inadequate ventilation

- Alternatives
  - Benzyl alcohol
  - Dimethyl glutarate
  - Several others

SAFER CONSUMER PRODUCTS

DTSC

Spray Polyurethane Foam (SPF) Systems with unreacted diisocyanates

The product

- Systems with unreacted materials
- System components react and cure
- Used for
  - Home and building insulation
  - Weatherizing & sealing
  - Roofing

The chemical

- Diisocyanates including
  - MDI
  - HDI
  - TDI

SAFER CONSUMER PRODUCTS

DTSC

Spray Polyurethane Foam (SPF) Systems with unreacted diisocyanates

Hazard

- A leading cause of occupational asthma
- Respiratory sensitizer – often reaction becomes worse with repeated use

Exposure

- Who: Workers & DIYers
- How: Inhalation of uncured/wet diisocyanates

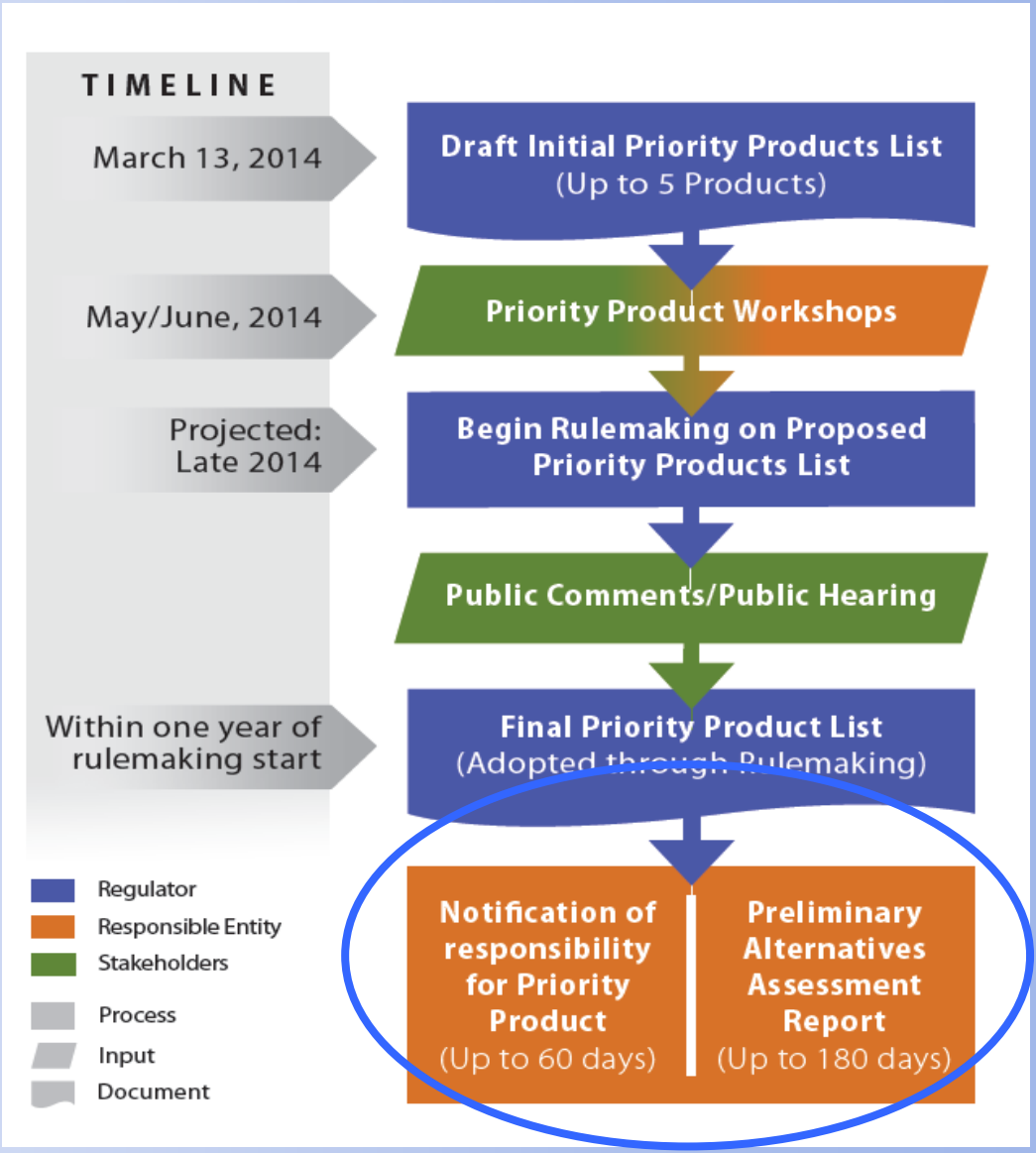
Alternatives

- Cellulose, fiberglass
- Spray alternatives unknown to DTSC

SAFER CONSUMER PRODUCTS

DTSC

Next Steps



Regulatory reporting requirements begin

SAFER CONSUMER PRODUCTS

Next Round of Products?

- Publish Draft Priority Product 3 Year Workplan,
  - Hold Workshop late summer
  - Finalize by October 1, 2014
- Identify Product Categories (menu of subsequent Priority Products)

SAFER CONSUMER PRODUCTS

DTSC

1. Candidate Chemical Selection
2. Identify Priority Products with Chemicals of Concern

3 Alternatives Analysis

4. Regulatory Response

SAFER CONSUMER PRODUCTS

DTSC

Example Frameworks

- CA Safer Consumer Products Regulations
- REACH Authorization - Analysis of Alternatives
- Lowell Center AA Framework
- U.S. EPA Design for the Environment Chemical AA Steps
- German Federal Environment Agency: Guide on Sustainable Chemicals
- Interstate Chemicals Clearinghouse AA Guide
- BizNGO: Chemical Alternatives Assessment Protocol

SAFER
CONSUMER
PRODUCTS

"A-M" Criteria (from the statute)

A. Product function/ performance
B. Useful life
C. Materials/resource consumption
D. Water conservation
E. Water quality impacts
F. Air emissions
G. Product use, transportation, 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

SAFER CONSUMER PRODUCTS

DTSC

Comparison with California Requirements

Attributes / Framework	Does it include Guidance?	Is it Publically Available?	A Product Function	B Useful Life	C Materials Consumption	D Water Conservation	E Water Quality Impact	F Air Emissions	G Prod. Use Energy Inputs	H Energy Effifiency	I Greenhouse Gas Emmisio	J Waste/EOL Disposal	K Public. Health Impcts	L Environmental Impacts	M Economic Impacts	(G)overnment(A)cademic Industry/NGO(X)
California Safer Consumer Products Regulation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	G
Interstate Chemicals Clearinghouse (IC2) Alternatives Assessment Guidance (draft)	Y	Y	Y	Y	Y	N	P	Y	Y	N	Y	Y	P	P	P	G
DfE Chemical Alternatives Assessment Steps	Y	Y	Y	N	N	N	Y	Y	N	N	N	Y	P	P	P	G
German Guide on Sustainable Chemicals	Y	Y	N	N	Y	Y	N	P	P	Y	Y	Y	Y	P	P	G
UNEP Persistent Organic Pollutants Review Committee General Guidance on Alternatives	Y	Y	Y	Y	?	N	P	P	N	N	N	P	P	P	Y	G
REACH Authorization Analysis of Alternatives	Y	Y	Y	Y	?	N	P	P	N	N	?	Y	Y	P	Y	G
Lowell Center Alternatives Assessment Framework	Y	Y	Y	Y	N	N	N	N	N	N	N	N	P	P	P	A
TURI Alternatives Assessment Process Guidance	Y	Y	Five case studies – see Lowell Center above.													G
UCLA Multi-Criteria Decision Analysis	N	Y	Framework only – Does not specify A-M tools.													A
BizNGO Alternatives Assessment Protocol	N	Y	Framework only – Does not specify A-M tools.													X
Cradle to Cradle	Y	Y	N	P	P	P	P	P	P	P	N	P	P	N	N	X

Y = Yes/ May Meet California SCP Requirements
N = No/Not Included ? = Not Clear
P = May Partially Meet California SCP Requirements

SAFER CONSUMER PRODUCTS

ADVERSE ENVIRONMENTAL IMPACTS §69505.5(c)(1)(A)

Adverse air quality impacts §69505.1(a)(3)

- CA Toxic Air Contaminants
- Emissions of Greenhouse Gases
- Emissions of nitrogen oxides
- Emissions of particulate matter §69405.7
- Emissions of stratospheric ozone depletion §69405.8
- Emissions of sulfur oxides
- Emissions of Tropospheric ozone-forming §69405.1

Adverse ecological impacts §69505.1(a)(7)

- Acute or chronic toxicity;
- Changes in population size, reductions in biodiversity, or changes in ecological communities; and
- The ability of an endangered or threatened species to survive or reproduce;
- Deterioration or loss of environmentally sensitive habitats;
- Impacts that contribute to or cause vegetation contamination or damage; and
- Biological or chemical contamination of soils; or
- Any other adverse effect in:#
- Domesticated Animal Toxicity
- **NOT COMPLETE LIST**

Adverse soil quality impacts §69505.1(a)(7)

- Compaction or other structural changes;
- Erosion;
- Loss of organic matter;
- Soil sealing

Adverse water quality impacts §69505.1(a)(9)

- Increase in biological oxygen demand;
- Increase in chemical oxygen demand;
- Increase in temperature;
- Increase in total dissolved solids;
- CWA 303(c) & (d);
- Safe Drinking Water Act Pollutants;
- CA HSC 116455 with Notification Levels;
- CA safe Drinking Water Act with Public; Health Goals

Exceedance of enforceable California or federal regulatory standard relating to the protection of the environment.

Must See other Regulations for complete for list

SAFER CONSUMER PRODUCTS

Guidance- Key considerations

AA's will inform:

- Regulated entity's decisions
- DTSC's regulatory response

SAFER CONSUMER PRODUCTS

What do the regulations require?

1st stage → Screening and options identification

- Identify information that is available
- Determine what is needed
- Identify Relevant factors
- *Optional* - consider Economic impacts
- Identify alternative(s) for further consideration

2nd Stage → Decisions

- Deeper dive
- Economic impact required
- Select the preferred/recommended alternative
- Narrative explains basis for conclusions and decisions

SAFER
CONSUMER
PRODUCTS

Next Steps for AA

- New Green Ribbon Science Panel (GRSP) providing input
- Complete Draft Guidance for Preliminary AAs and hold stakeholder workshops (Summer 2014)

SAFER CONSUMER PRODUCTS

DTSC

1. Candidate Chemical Selection
2. Identify Priority Products with Chemicals of Concern
3. Alternatives Analysis

4 Regulatory Response

SAFER CONSUMER PRODUCTS

DTSC

List of Regulatory Responses

- No response
- Additional information to DTSC
- Additional information to consumer
- Additional safety measures
- Restrictions/Prohibitions on Sales
- End-of-life product stewardship
- Research funding

SAFER CONSUMER PRODUCTS

DTSC

The road ahead…

- 3 Year Product Workplan
- Priority Product Rulemaking
- Alternative Analysis Guidance
- Petitions to add/delete chemicals and products?
- Development of Data System

SAFER CONSUMER PRODUCTS

DTSC

What does success look like?

SAFER CONSUMER PRODUCTS

DTSC

Signal to the Marketplace…

SAFER CONSUMER PRODUCTS

DTSC

The Market is Responding…

SAFER CONSUMER PRODUCTS

DTSC

SAFER CONSUMER PRODUCTS

DTSC

Opportunity for innovation

Protecting People and the Environment

SAFER
CONSUMER
PRODUCTS

Questions and Information??

SaferConsumerProducts@dtsc.ca.gov

http://www.dtsc.ca.gov/SCP

SAFER CONSUMER PRODUCTS

DTSC

Thank you!

Contact:

Karl.Palmer@dtsc.ca.gov

916.445-2625

SAFER CONSUMER PRODUCTS

DTSC