



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....



DTSC



What We Need

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

The Goal:

- Safer consumer products.
- Greater market opportunities for innovative companies
- Healthier us!



2007-2013: California's Approach



Green
Chemistry
Report

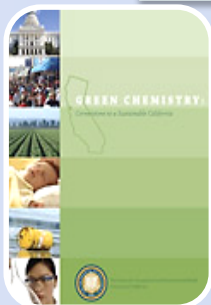
Green
Chemistry
Options

Policy
Thinking

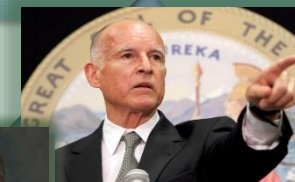
2010 Draft
Regulations

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:

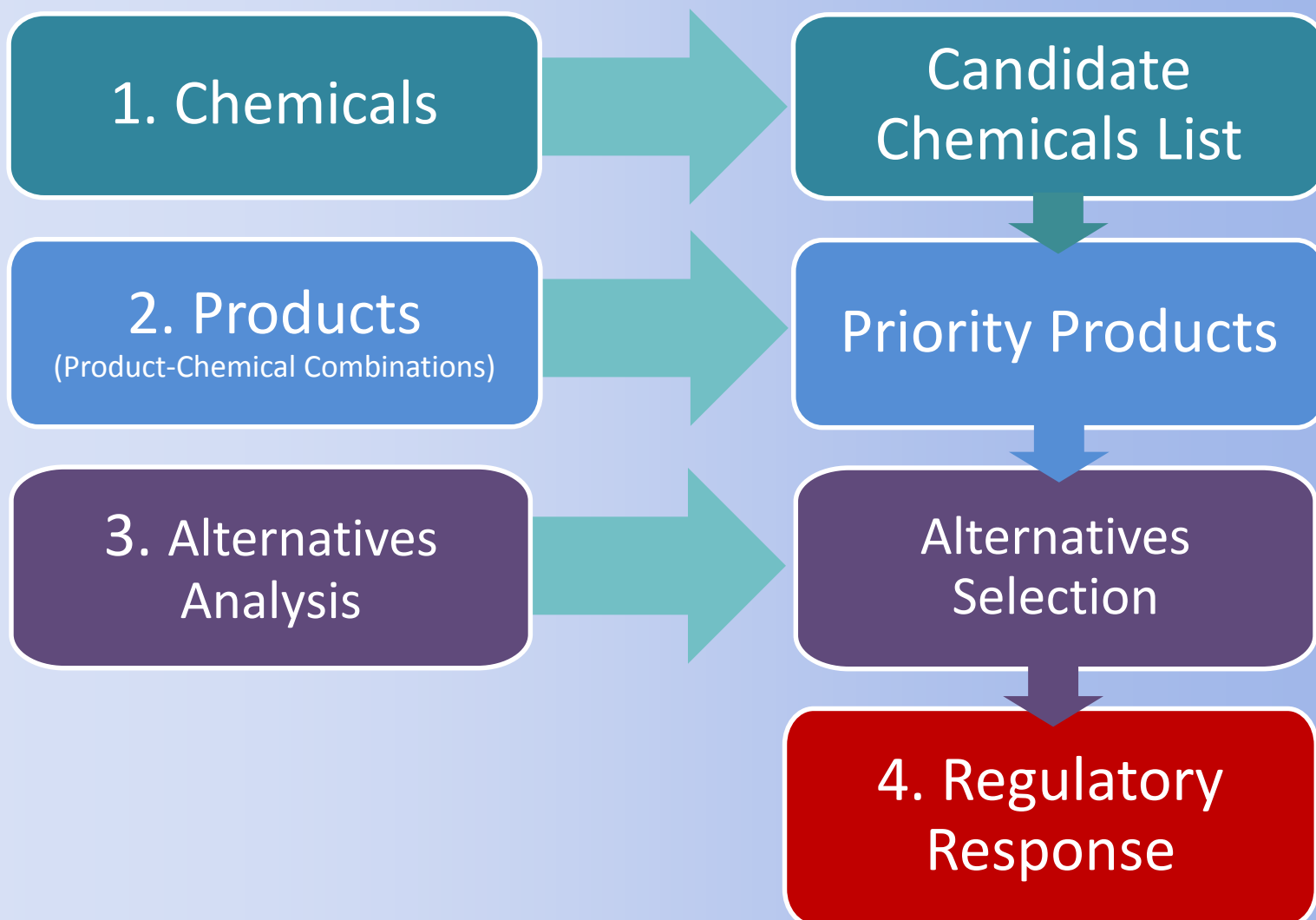
➤ **Is it necessary ?**


(Is there a safer alternative?)



DTSC

How It Works: The SCP Regulations

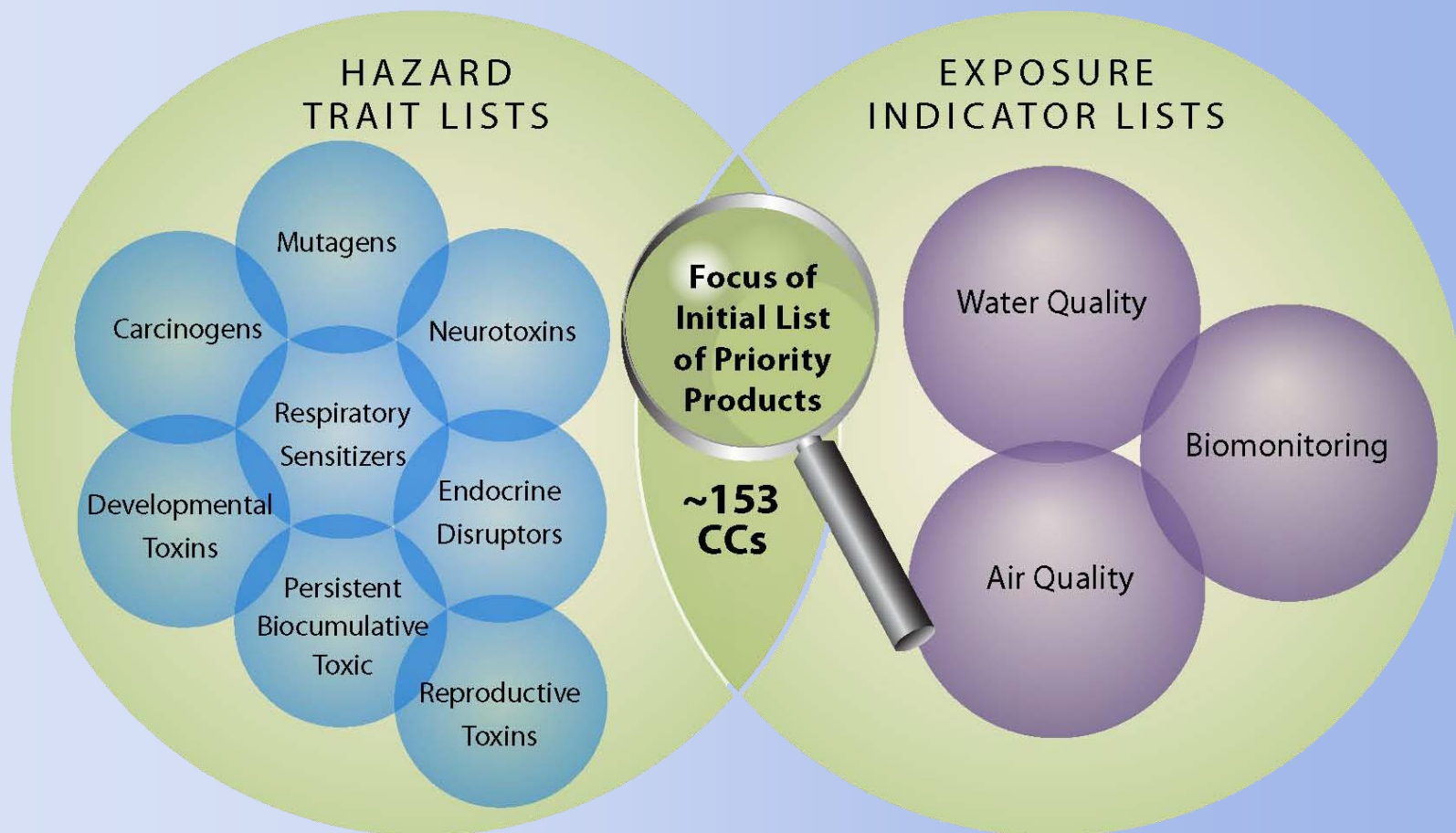




1 Candidate Chemicals Identification

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

List of Candidate Chemicals: ~1,100



Searchable Candidate Chemical Database

Download Candidate Chemical List

Search by Chemical Name and CAS RN

for

x

Search

☐ Search Group Names

☐ Show Only Initial List

Formaldehyde

Formaldehyde, reaction products with branched nonylphenol and xlenol, ethoxylated

Formaldehyde, reaction products with sulfonated 1,1'-biphenyl and sulfonated terphenyl, sodium salts

Formamide

Formic acid, copper nickel salt

Formic acid, nickel salt

Select Hazard Traits

Select All

Clear All

- ☐ Ambient Ozone Formation
- ☐ Bioaccumulation
- ☐ Carcinogenicity
- ☐ Cardiovascular Tox
- ☐ Combustion Facilitation
- ☐ Dermatotoxicity
- ☐ Developmental Tox
- ☐ Digestive System Toxicity
- ☐ Domesticated Animal Tox
- ☐ Endocrine Tox

Select Authoritative List(s)

Hazard Trait Lists

Select All

Clear All

- ☐ ATSDR Neurotoxicants
- ☐ Canada PBiTs
- ☐ EC Annex VI CMRs - Cat. 1A
- ☐ EC Annex VI CMRs - Cat. 1B
- ☐ EC Annex VI Resp. Sens. - Cat. 1
- ☐ EC EDs - Cat. 1
- ☐ EC PBTs
- ☐ IARC Carcinogens - 1
- ☐ IARC Carcinogens - 2A



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



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**



Initial Priority Products

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



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



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**

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

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



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



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



Next Steps

TIMELINE

March 13, 2014

Draft Initial Priority Products List
(Up to 5 Products)

May/June, 2014

Priority Product Workshops

Projected:
Late 2014

**Begin Rulemaking on Proposed
Priority Products List**

Public Comments/Public Hearing

Within one year of
rulemaking start

Final Priority Product List
(Adopted through Rulemaking)

**Notification of
responsibility
for Priority
Product**
(Up to 60 days)

**Preliminary
Alternatives
Assessment
Report**
(Up to 180 days)

- Regulator
- Responsible Entity
- Stakeholders
- Process
- Input
- Document


Regulatory reporting
requirements begin





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)

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

3 Alternatives Analysis

4. Regulatory Response



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



“A-M” Criteria (from the statute)

- | | |
|--|--|
| A. Product function/
performance | H. Energy efficiency |
| B. Useful life | I. Greenhouse gas
emissions |
| C. Materials/resource
consumption | J. Waste and end-of-life
disposal |
| D. Water conservation | K. Public health impacts:
sensitive sub-
populations |
| E. Water quality impacts | L. Environmental impacts |
| F. Air emissions | M. Economic impacts |
| G. Product use, transpor-
tation, energy inputs | |

Comparison with California Requirements

Attributes Framework	Does it include Guidance?	Is it Publicly Available?	A	B	C	D	E	F	G	H	I	J	K	L	M	(G)overnment/(A)cademic Industry/(N)GO/(X)
			Product Function	Useful Life	Materials Consumption	Water Conservation	Water Quality Impact	Air Emissions	Prod. Use Energy Inputs	Energy Efficiency	Greenhouse Gas Emissions	Waste/EOL Disposal	Public Health Impacts	Environmental Impacts	Economic Impacts	
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
Regulation
s for
complete
for list**



SAFER
CONSUMER
PRODUCTS





Guidance- Key considerations

AA's will inform:

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





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



Next Steps for AA

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

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

4 Regulatory Response



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



DTSC



What does success look like?



SAFER
CONSUMER
PRODUCTS



DTSC



Signal to the Marketplace...



SAFER
CONSUMER
PRODUCTS



DTSC

The Market is Responding...

The screenshot shows a web browser window with the FCW (Floor Covering Weekly) website. The browser's address bar shows the URL "http://www.fcw.com". The website's header includes a search bar, a "GO" button, and a navigation menu with links to Editorials, Columnist, Archives, Awards, Events, Market Place/Classifieds, Media Kit, and Product. The main content area features an article titled "Regulations demand safer adhesives" by Issue, dated October 28, 2013, and posted on 10/25/2013. The article discusses the potential impact of the California Department of Toxic Substances Control (DTSC) Safer Consumer Products regulations, which take effect on October 1, 2013. The article states that adhesive manufacturers must take action to eliminate higher risk toxic substances in their products. The article also mentions that the regulations are designed to encourage manufacturers to use safer chemical alternatives in their products by identifying chemicals of concern, and restricting their subsequent use. Secondary goals of the program are to create new business opportunities in the safer consumer products category, and to reduce the burden on consumers and businesses attempting to identify any potentially toxic makeup of the products they purchase. The article concludes by stating that the process starts with creating and publishing an initial list of candidate chemicals, expected to number 230 substances, but would grow to more than 1,200 chemical compounds, defined

On the right side of the website, there is a sidebar with a "COLOR TRE 2014" banner and a "SIGN" button. Below this, there is a "Floor Covering Week DEALER CHOICE AWARD" banner with a red checkmark. The banner includes the text "Submit your entries NOW and be Premier Awards Program at Surface" and a "CLICK HERE TO SIGN" button. The entry deadline is stated as "December 1". At the bottom of the sidebar, there is a "COVERAG" banner.



SAFER
CONSUMER
PRODUCTS



DTSC

Protecting People and the Environment





Questions and Information??

SaferConsumerProducts@dtsc.ca.gov

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



DTSC



Thank you!

Contact:

Karl.Palmer@dtsc.ca.gov

916.445-2625



DTSC