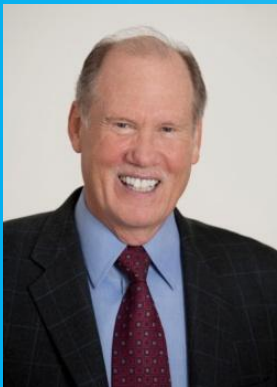


Healthy Purchasing Coalition
Public Purchasing Professionals
July 24, 2013

STAPLES®

Making an Orderly Transition to Safer Chemicals, Materials and Products



Roger McFadden,
Vice President, Senior Scientist,
Staples, Inc.



that was easy:

Sustainability is a Team Sport

No single organization or department can do it alone

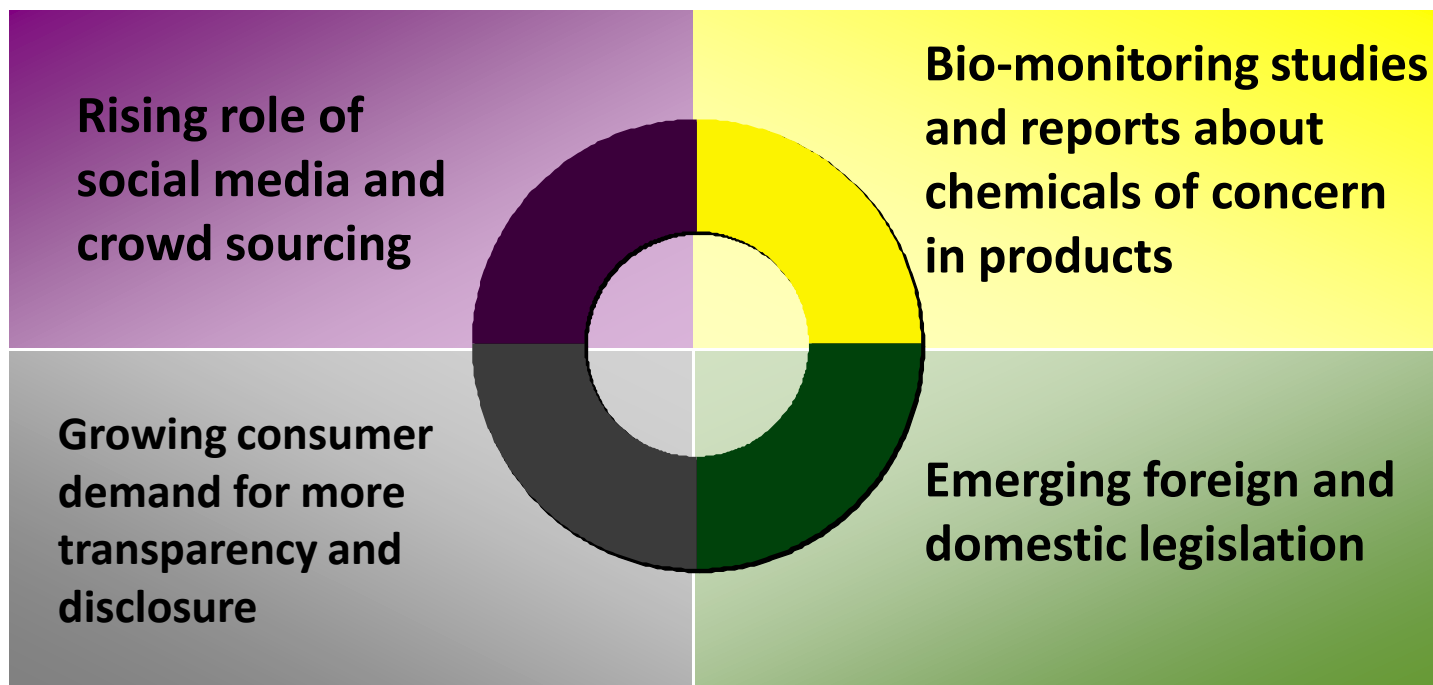
- Collaboration is essential:
 - Healthy Purchasing Coalition
 - EHS Professionals
 - Sustainability Team
 - Health & Wellness Team
 - Certifications
 - Industry Standards
 - Government Agencies
 - Academia
 - NGOs
 - Product and Service Providers
- Partnerships are synergist



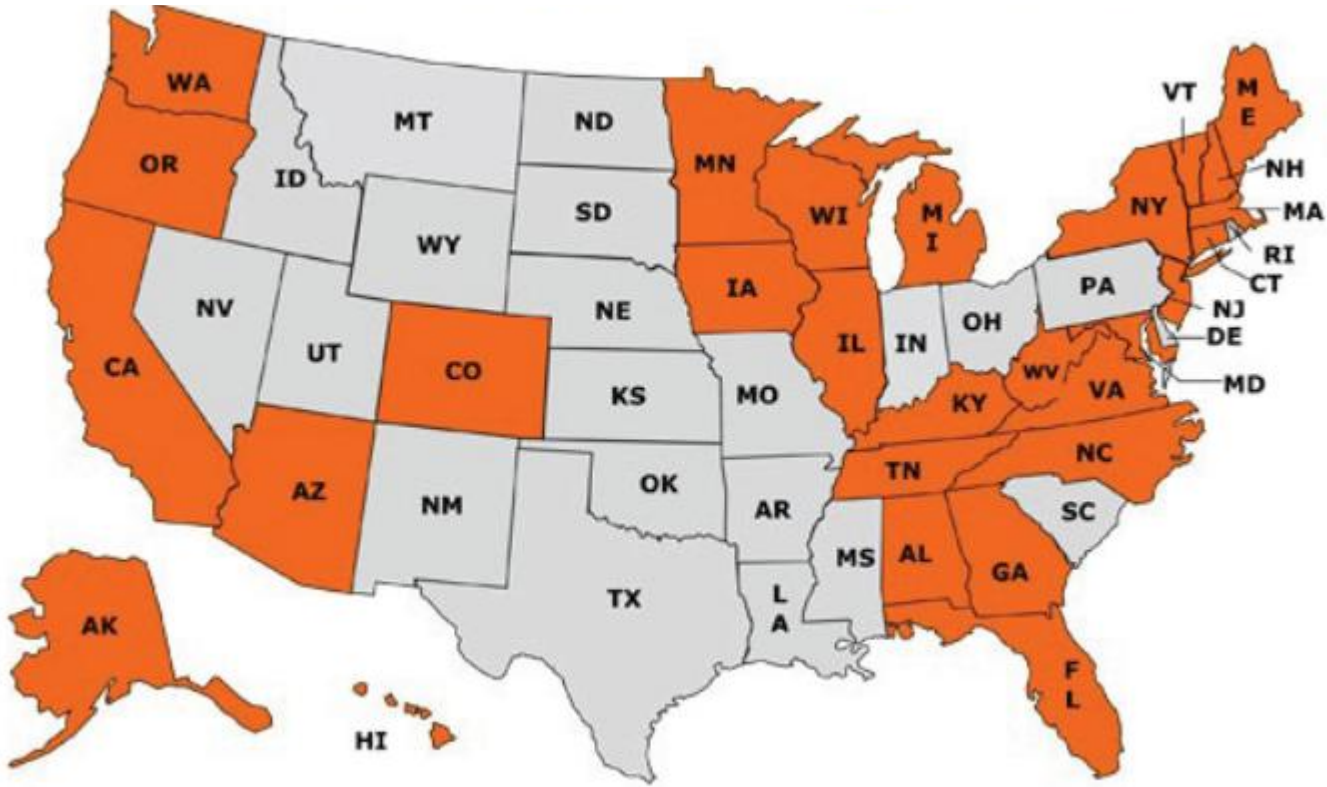


Growing Demand for Transparency and Disclosure

Trends impacting supply chain management of chemicals and materials

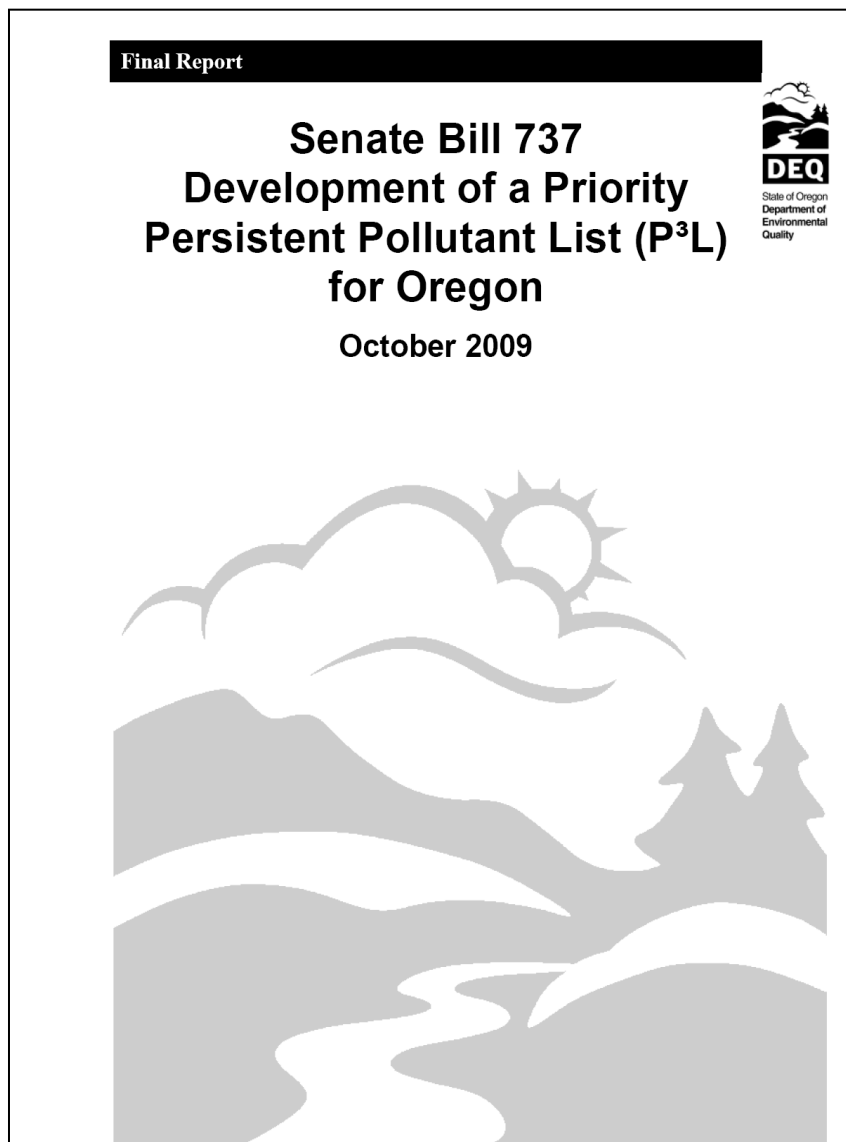


28 States Considering Toxic Chemicals Legislation



By Sarah Doll, National Director for Safer States.

Oregon DEQ's Final P³ List Identified 118 Priority Persistent Pollutants



Oregon Governor Kitzhaber's EO 12-05

Fostering Environmentally Friendly Purchasing and Product Design

Office of the Governor
State of Oregon



EXECUTIVE ORDER NO. 12-05

FOSTERING ENVIRONMENTALLY-FRIENDLY PURCHASING AND PRODUCT DESIGN

Emerging market opportunities driven by consumer demand and changing regulations in the U.S. and abroad are creating a shift to products that are designed to be safe for people and the environment. Building materials, electronics, apparel and cleaning products are just some of the products that are increasingly being designed to eliminate or significantly reduce the use of toxic materials. Businesses that use safer, cleaner alternatives to toxic chemicals and processes will be in the best position to capture this growing market.

Fostering innovation and encouraging new business development through a coordinated effort in Oregon will help firms take advantage of emerging market opportunities. Thoughtful application of green chemistry principles, aligned with an over-arching toxic reduction strategy, can foster a cleaner environment that will help all Oregonians live healthy and productive lives, free of illness and disease. Green chemistry is based on a philosophy of encouraging the design of products and processes to minimize the use and generation of toxic substances.

By encouraging the design and use of chemicals and materials that are benign by design and more sustainable throughout their lifecycle, Oregon and its business community will boost our state economy and lower the cost of health care in the future. Scientific studies show that chemical exposures can lead to or contribute to chronic disease.

Oregon universities are already recognized leaders in green chemistry research and education. We are also home to a number of businesses that are early adopters of green chemistry. As an added benefit, Oregon's agricultural and forest resources can serve as feedstocks for non-toxic, bio-based chemicals and products, supporting the creation and retention of jobs in rural Oregon, and economic development for rural counties.

By fostering the development of the next generation of green materials, Oregon has the opportunity to demonstrate national leadership and a commitment to the quality of life that Oregonians value. Ultimately, successful innovation will create good jobs that are safer for workers and offer a high quality of life for our communities, enhancing opportunities and resources for future generations. By applying green chemistry, Oregon will be able to address some of our most significant sustainability related challenges head on. In doing so, we will be supporting the health and well-being of our citizens and protecting the resiliency of the ecosystems we depend upon.

Four Strategic Areas:

Building Awareness

Providing Innovation Tools

Strengthening Demand

Refining Toxics Reduction Strategies

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easy on the planet

Chemicals are a key element of materials, products and processes in our supply chains



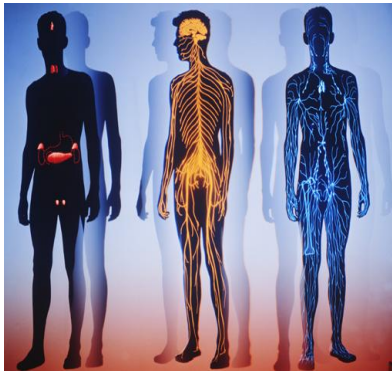
- Chemicals are the building blocks for materials and products.
- Introduction of new chemicals over the past few decades has provided significant value to product designers.
- New chemicals have helped cure and treat diseases; improve the quality, efficiency and convenience in our workplaces, homes and communities.



BUT.... not all chemicals are created equal They are inherently different

- Different hazard traits
- Different human health/ecotoxicity endpoints
- Different exposure routes
- Different degradation/combustion by-products
- Different pollution potential





Hazard Traits/Endpoints

Ecological Hazards

Acute Aquatic

Chronic Aquatic

Human Health Hazards

- Cancer
- Developmental
- Endocrine Disruption
- Genotoxicity/Mutagenicity
- Acute
- Immune System
- Irritation/Corrosion
- Neurological
- Sensitizer Respiratory
- Sensitizer Skin
- Systemic Toxicity – Organ Effect

Environmental Hazards

Bioaccumulation Potential

Persistence

Physical/Chemical Properties Hazards

Flammability

Explodability

Example:

Chemicals of Concern in Cleaning Products

CHEMICAL OF CONCERN	CAS NUMBER	PRODUCT TYPES	HAZARD TRAIT
Formaldehyde	50-00-0	Hand soaps, finishes and sealers	CARCINOGEN
Crystalline Silica Quartz	14464-46-1	Floor sweeping compounds	CARCINOGEN
Trichloroethane 1,1,1	71-55-6	Carpet spotters, laundry spotters and graffiti removers	CARCINOGEN
Paradichlorobenzene	106-46-7	Urinal blocks	CARCINOGEN
Amaranth (Red dye #2)	915-67-3	Colorant	CARCINOGEN
Saffrole	94-59-7	Fragrance	CARCINOGEN
Hydrofluoric Acid	7664-39-3	Mineral stain removers	HIGHLY CORROSIVE
Hydrochloric Acid	7647-01-0	Toilet bowl cleaners	HIGHLY CORROSIVE
Phosphoric Acid	7664-38-2	Toilet bowl cleaners; Tub and Tile Cleaners	HIGHLY CORROSIVE
Sodium Hydroxide	1310-73-2	Highly duty cleaners; Wax strippers and degreasers.	HIGHLY CORROSIVE
Dibutyl phthalate	84-74-2	Floor finishes and sealers	ENDOCRINE DISRUPTERS
Nonylphenol Ethoxylates (NPE)	9016-45-9	Glass cleaners, all-purpose cleaners and fragrances.	ENDOCRINE DISRUPTERS
Ammonium Hydroxide	1336-21-6	Wax strippers, all purpose cleaners and glass cleaners.	INHALATION IRRITANT

Products in Your Facilities and Operations That May Contain Chemicals to Avoid

- Glass cleaners
- General purpose cleaners
- Wax strippers and finish removers
- Degreasing agents
- Restroom cleaners
- Metal cleaners and polishes
- Pesticides
- Disinfectants and sanitizers
- Building materials
- Office furniture
- Printing inks and toners
- Dry eraser markers and cleaners
- Break Room cleaners
- Floor and hard surface coatings



Benefits of Transitioning to “Safer Alternatives”

- **Assures compliance with:**

- Chemical regulations
- Pollution prevention/control regulations
- Worker safety regulations
- Transportation regulations
- Environmental regulations
- Waste management
- Chemical exposure control



- **Creates value for customer, community and company**

- Stays ahead of regulations
- Prevents and controls pollution
- Eliminates chemical hazards
- Promotes wellness
- Lowers life cycle costs
- Builds credibility
- Attracts and retains the right associates



Staples' Commitment to Transitioning to Safer Chemicals Preventing Product Based Pollution

Staples Chemical Policy

Primary Objective

Staples seeks to offer organizations of all sizes products that are inherently safer for human and environmental health and that address environmental impacts throughout their lifecycle.

Key Guiding Principles

- Knowing is better than not knowing.
- Action is better than inaction.
- Eliminating chemical hazard is better than managing exposure.
- Transparency/disclosure is better than vagueness or obscurity.
- Orderly proactive transition is better than abrupt reaction.
- Building a new model that makes the old model obsolete is better than wasting time and resources fighting or defending the old model.

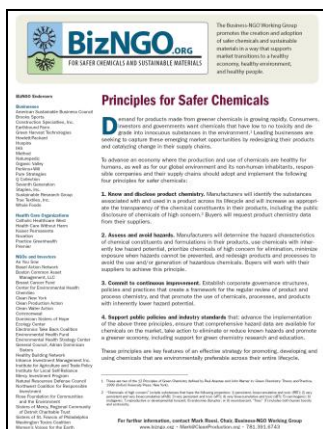


**GUIDING
PRINCIPLES**

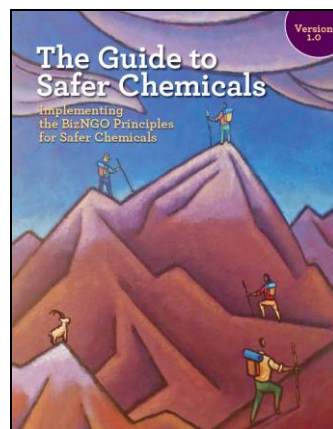
Staples Chemicals Management Commitments

- Endorsed the BizNGO Principles for Safer Chemicals.
- Announced Staples “Race to the Top” Chemicals Management Strategy
- Developed and published a Staples “Bad Actors” RSL.
- Prepared a Staples “Chemicals Policy” currently being implemented

Tools and Resources



1



2

1. BizNGO Guiding Principles for Safer Chemicals

www.bizngo.org/guidingPrinciples.php

2. BizNGO Implementation Guide to Safer Chemicals

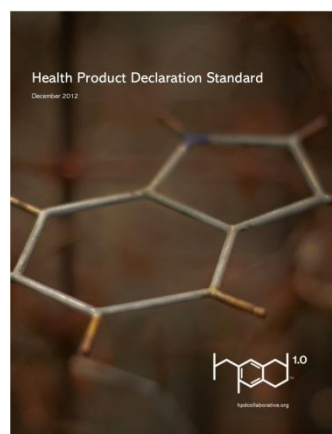
www.bizngo.org/guide.php

3. Clean Production Action Green Screen

www.cleanproduction.org/Greenscreen.php



3



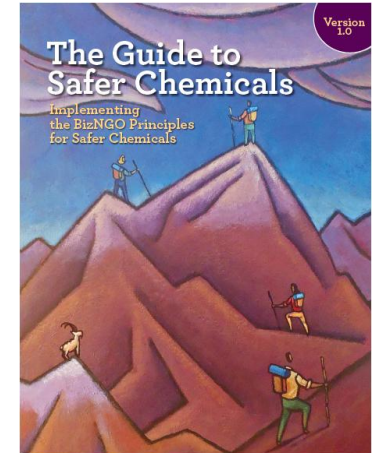
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4. HPD Collaborative Health Product Declaration

www.hpdcollaborative.org

How is Staples Using the BizNGO Safer Chemicals Guide

- To implement the BizNGO Principles for Safer Chemicals
- To help suppliers comply with Staples' Chemical Policy
- To create a meaningful and structured dialogue with our suppliers
- To proactively respond to growing market expectation and/or demand for safer and more sustainable products
- To fill chemical data gaps and improve data quality
- To improve quality of chemical data
- To identify chemicals of high concern in our supply chain
- To identify and/or validate safer chemicals, materials, processes and products
- To set realistic and measurable goals for our organization
- To map and measure continuous and incremental improvement
- To identify and support industry standards, policies and tools that help meet the objectives



Material Safety Data Sheets

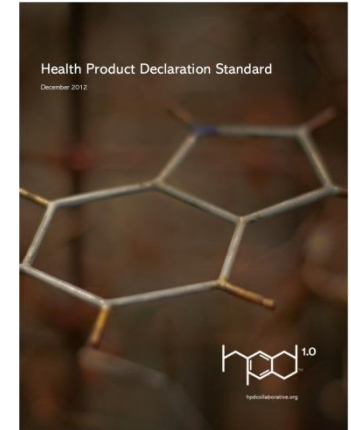
Good Place to Begin but ... Typically NOT Enough

- Not all products containing COC require MSDS
- Doesn't require full ingredient disclosure
- Exempts disclosure of harmful chemicals below 10,000 ppm
- Allows CBI protection for harmful chemicals
- Virtually unregulated for quality and completeness



Why Staples Supports the Use of Health Product Declarations

- Open and inclusive process used to create the Standard – Input from a wide range of stakeholders including downstream users and businesses.
- Proactively responds to the growing supply chain demand for more ingredient disclosure and transparency.
- Creates common language and communication across the supply chain –merchant-to-supplier, business-to-business, business-to-customer, business to government etc.
- Pragmatic tool to help make an orderly transition



Staples “Race to the Top”

Corporate Strategy to Drive Sustainability Innovation

- **Staples** announced a new corporate strategy to drive sustainability innovation in product manufacturing, packaging and distribution by challenging its key suppliers to join it in a **"Race to The Top."**
- Staples calls on **suppliers** to compete not only in terms of product quality, cost and features, but in finding innovative solutions for product manufacturing, packaging, and distribution which reduce impacts on the planet.
- Staples scientists are **meeting with traditional and non-traditional chemical and materials manufacturers** to learn more about their safer alternatives with the objective to **develop a preferred materials list** to share with product suppliers.



Overarching Goals of Staples Chemicals Policy

- Be proactive and ask suppliers to be more transparent about chemicals in products
- Avoid product based pollution
- Avoid hazard at product design stage
- Promote products that are made using green chemistry principles
- Make an orderly transition to safer materials.



Staples Restricted Substances Lists

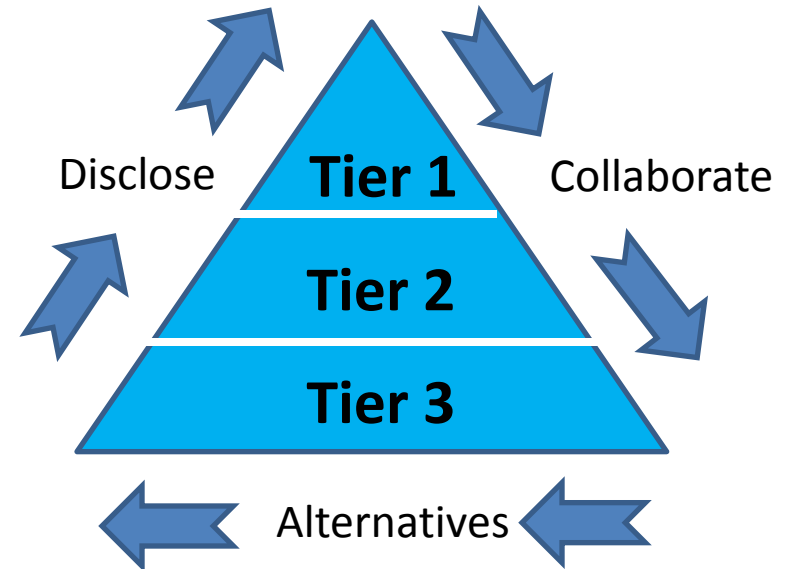
- Aniline
- Benzidine dyes
- Bis (2-ethylhexyl)phthalate (DEHP)
- Bisphenol A
- Cadmium
- Dibutyl phthalate
- Diethyl phthalate
- 2-butoxyethanol
- Ethylene glycol monoethyl ether
- Ethylene glycol monomethyl ether
- Formaldehyde
- Heptane
- Hexane
- Hexavalent chromium
- Lead and lead compounds
- Mercury and Methyl Mercury
- Nonylphenol ethoxylates
- Paradichlorobenzene
- Perfluorooctanoic acid (PFOA)
- Permethrin
- Polyvinyl chloride
- Propoxur
- Safrole
- Trichloroethylene
- Triclosan
- Trisodium nitrotriacetate

Staples Restricted Substances List

Staples Safer Materials Approach

Multi-Tier Supplier Collaboration -- Action Items

- Request product chemistry and hazard traits/endpoint disclosure from suppliers;
- Prioritize chemicals of high concern for elimination;
- Create collaboration with suppliers to:
 - Ask if a chemical is necessary in the product
 - Avoid chemicals of concern whenever possible
 - Substitute safer alternatives
 - Encourage green chemistry as a solution
- Develop a scorecard to measure progress and evaluate results.



Suppliers Are Not Created Equal!

Different Approaches to Managing Chemicals in Products



We challenge our suppliers to take a precautionary approach and be guided by the following principle:



When there is credible evidence that a chemical in a product may result in harm to human and/or environmental health, we should strive to eliminate the chemical and replace it with a quality, affordable, safer and more sustainable alternative.

**We challenge our suppliers to consider
chemicals of concern in products to be:**



Pollutants

Contaminants

Defects

We challenge our suppliers to consider direct and indirect chemical exposure to vulnerable sub-populations including:



Children

Women of Child-Bearing Age

Workers

**We challenge our suppliers to consider life cycle impacts
of chemicals including harmful by-products of:**



**Degradation
and
Combustion**

We challenge our suppliers to consider life-cycle cost of a product containing chemicals of concern including:



Initial cost of the product

Cost of handling and use

Cost of recycling or disposal

We challenge our chemical suppliers that claim chemicals of concern as trade secrets to place at least equal value on their customer's need and/or right to:



Know

Understand

Changing Supplier Behavior

Lessons Learned



- Be clear with your suppliers about what you want. Suppliers are looking for ways to differentiate themselves and bring you value. The best in class will cooperate.
- Be fair with your suppliers and provide them reasonable time to meet your expectations, but don't allow them to use this to stall or delay taking action.
- Don't be held hostage by "status quo". Be willing to look at new suppliers.
- Vote with your "spend". Once suppliers understand that "dollars" are at stake they will respond.

Green Chemistry Challenge as a Solution

Green chemistry is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances.

Green chemistry applies across the life cycle of a chemical product, including its design, manufacture and use.



Source: www.epa.gov/greenchemistry/

What to Look For When Selecting Products

- Supplier commitments
- Ingredients matter
- Know what to avoid
- Beware of green washing
- Consider life-cycle costing
- Know your options



Immediate Actions You Can Take



- Screen your products to identify existing IAQ and IEQ contaminants with the goal of eliminating them.
- Screen your processes and procedures for potential sources of contamination with the goal of improving them.
- Collaborate with your suppliers and identify safer alternatives without sacrificing performance or increasing cost.

Everyone Wins With Safer Chemicals, Materials and Products



- Creates shared value for consumer, community and company.
- Suppliers are able to leverage their innovation & differentiation
- Chemicals of concern become obsolete as they are replaced with safer alternatives
- Helps protect human health
- Helps protect natural and built environment both now and in the future.

Ultimate Decision Maker

There is only one boss. The customer. And he or she can fire everybody in the company from the chairman on down, simply by spending their money somewhere else.

Sam Walton

The Choice is Ours to Make

“The choice, after all, is ours to make. If, having endured much, we have at last asserted our ‘right to know’, and if knowing, we have concluded that we are being asked to take senseless and frightening risks, then we should no longer accept the counsel of those who tell us that we must fill our world with poisonous chemicals; we should look about and see what other course is open to us.”

Rachel Carson, *Silent Spring*, New York, NY: Fawcett World Library, 1962

STAPLES®

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Visit **www.coastwidelabs.com** or **www.StaplesAdvantage.com/Facility**
for more information.



that was easy: