Purchasers As Change Agents - Healthier, Less Toxic Products

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Center for Environmental Health
Center for Environmental Health (CEH)

A nonprofit organization dedicated to protecting public health from exposures to toxic chemicals.

Partnering with large purchasers to utilize their buying power to incentivize the production of environmentally preferable products

Visit us at: www.ceh.org
Diseases Linked to Environmental Exposure on the Rise

- Asthma up 100%
- Brain cancer up 20%
- Impaired fertility doubled
- 1-in-6 with learning and developmental disabilities
- Leukemia up 20%
Chemical Policy in the US

Most Chemicals in the U.S. are Not Regulated

62,000 chemicals “grandfathered in”

- EPA has regulated only five chemicals
- Only 200 chemicals have been tested for threats to human health and the environment
- 85% lack data on chemical health effects
- 2,000 new chemicals enter market each year
Six Classes Videos
An innovative approach to reducing toxics

1. Highly Fluorinated
2. Antimicrobials
3. Flame Retardants
4. Bisphenols + Phthalates
5. Some Solvents
6. Certain Metals

VIEW and SHARE: www.SixClasses.org

Healthier products, healthier people in four minutes!

CEH
Indoor Air Quality

• Most Americans spend up to 90% of their time indoors
• Indoor air can have higher levels of pollutants than outside levels
• Impacts health, comfort, well-being, and productivity

http://www.epa.gov/iaq/pubs/occupgd.htm
Case Study: Healthier Furniture
The “Hazardous Handful”

Flame Retardants
VOC’s (including Formaldehyde)
Antimicrobials
Fluorinated Stain Treatments
PVC

Flame Retardants
Creating Healthy Interiors: Avoiding Chemicals of Concern

**Flame retardants:** Electronics, Building insulation, Upholstered furniture, Wires & Cabling

**PVC:** Furniture, Fabrics, Flooring, Wall coverings

**Formaldehyde:** Furniture, fabrics, composite wood products, adhesives for multiple wood products

**PFAS:** Furniture, Fabrics, Carpeting, disposable food ware, microwave popcorn

**Antimicrobials:** Furniture, Fabrics, Tables, Flooring, Door handles, Ceiling tiles
Chemical Flame Retardants

- **Health Concerns:**
  - Reproductive
  - Neurodevelopmental
  - Immune system impacts
  - Cancer
- Flame retardants **migrate** out of products: found in humans, breast milk, dust, pets, wildlife, environment
- Do not reduce number or severity of fires in typical furniture

**Recommendation:**
Specify products that do not contain FRs and are labeled as such.

CEH
Polyvinyl Chloride (PVC) / Vinyl

**Health Effects:**
- Neurodevelopmental, endocrine disruptor, birth defects, reproductive, cancer

**Environmental Impacts:**
- Problematic throughout life cycle: manufacture, use and end-of-life

**Recommendation:**
- Avoid products with PVC
- Small components exemption: > 1% of product by weight

Photo courtesy of Perkins + Will
Volatile Organic Compounds

Health Effects:

- Respiratory, cancers, decreased fertility

Environmental Impacts:

- Negatively affects indoor air quality
- Exposure via inhalation, dermal, or occupational

Recommendations:

- CA Section 01350 (CA Dept. of Public Health) or SCS Indoor Advantage Gold or Greenguard Gold
Fluorinated Compounds (aka PFCs or PFAS)

Health Impacts:
- Kidney and testicular cancer, thyroid disruption, elevated total cholesterol, obesity

Environmental Impacts:
- Extremely persistent in environment and may bioaccumulate in people and wildlife
- Migrates out of products
- Exposed via ingestion of contaminated materials, food, (including breast milk) and occupational

Recommendation:
- Avoid stain or water repellant treatments that contain PFAS
Antimicrobials

Health Impacts:

• Endocrine problems, reproductive changes and possible increased allergies in kids.

Environmental Impacts:

• Limited evidence that antimicrobials added to furnishings reduces spread of infection
• Exposed through ingestion, inhalation and dermally
• Can create “super bugs”

Recommendation:

• Avoid products with antimicrobials
• Understand marketing claims
Consider “End of Life”

Extend Product Life When Possible
- Redeploy
- Reupholster/ Refurbish/ Remanufacture

Extending Life Has Other Benefits:
- Energy Savings
- Waste to Energy/Landfill Avoidance
- CO\(_2\) Reduction
- Natural Resource Savings
- Zero Waste Reduction Goal
Healthier Furniture: “Low Hanging Fruit”

- Healthier People and Communities
- Market is Receptive
- Safer Alternatives Exist
- Cost Neutral or Cost Savings *
- Sustainability success story
- Aligns with organizational mission and values
- Can contribute to valuable LEED points
- CEH offering technical assistance and resources

* Hackensack University Medical Center saved $65,000 on a $250,000 spend for lounge furniture

CEH
Existing Ecolabels/ Standards For Furniture

Disclosure:

Single-attribute:
- Air Emissions
- Recycled Content
- Wood
- Chemicals of concern

Multi-attribute:

for Textiles
Credit 7.4.4: Targeted Chemical Elimination

New criterion restricts:
- Flame retardants
- PFASs
- Antimicrobials
- PVC
- Formaldehyde

Can apply to level 1, 2, or 3 products
Manufacturers with Products Free of the Key Chemicals of Concern
(partial list)

allseating 4  
Allsteel®  
DAVID EDWARD  
HAWORTH®

Gunlocke®  
HBF  
HermanMiller

JASPER DESK  
KEILHAUER  
KI

Knoll  
LAZBOY®  
National Furniture with Personality®

OFS BRANDS

SitOnIt® Seating  
Steelcase

CEH  
IDEON  
Teknion  
WIELAND
Purchaser Pledge Signers

[Logos of various signatories]
Considerations for EPP Foodware

- Reusable
- Compostable
- Recyclable

Examples of Additional Environmental Attributes:
- Recycled content
- Forest Stewardship Council (FSC) Certified
- Chlorine-free bleaching
Disposable Foodware & Fluorinated Additives

- Can end up in food and landfill/compost
- Minimize use of disposables; use reusables whenever possible.
- Compostable does not equal safe
- (BPI-certified or Cedar-Grove Accepted “compostable” products can still have PFAS)

Summary of Test Results by Product Material Type

- Plates, bowls, clamshell containers and food trays
- ALL MOLDED FIBER products tested had high fluorine content

<table>
<thead>
<tr>
<th>Material Type Tested</th>
<th>Non-Fluorinated</th>
<th>Fluorinated</th>
<th># of Products Tested</th>
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<tr>
<td>All Molded Fibers including: Recycled Paper, Wheat Straw/ Wheat Stalk, Silver Grass (Miscanthus), Sugarcane Waste (Bagasse), Blend of Plant Fibers</td>
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<td>X</td>
<td>73</td>
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<tr>
<td>Paper with Unknown Coatings</td>
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<td>25</td>
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<td>PLA-Lined Paper and Paperboard</td>
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<td>&quot;100% Renewable Resources Lined with PLA&quot;</td>
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<tr>
<td>Clay-Coated Paper and Paperboard</td>
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<td>5</td>
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<tr>
<td>Palm Leaf</td>
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<tr>
<td>Untreated/Uncoated (Non-Molded) Paper</td>
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<tr>
<td>PLA-lined Molded Sugarcane/ Bagasse</td>
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<tr>
<td>Plastic-Lined Paper</td>
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<tr>
<td>Unknown materials</td>
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</tr>
<tr>
<td>Bamboo</td>
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Moving the Market Toward Safer Products

- Test the market with RFIs (if needed)
- Build specifications into RFPs/contracts
- Identify healthier products and block non-EP products
- Piggyback on “green” cooperative buying agreements
- Use contract extensions as opportunity for change
Summary:
Ways CEH Can Help

- Educate key staff (webinars, trainings)
- Participate in product testing (foodware)
- Provide sample letters to suppliers
- Survey manufacturers (if needed)
- Help interpret manufacturer responses
- Provide Tech. Specs. for RFPs/RFIs/Contracts
- Provide technical assistance
Carpeting and Flooring

- **Carpeting: San Francisco Specification Available**
  
  Or
  

- **Resilient Flooring: Guidelines Upcoming**
CEH Resources

Furniture
https://www.ceh.org/campaigns/flame-retardants/resources/

Food and Foodware
https://www.ceh.org/campaigns/endocrine-disrupting-chemicals/edc-resources/
Purchasers’ Voices Move the Market

- Provide reasonable timelines for supplier conformance
- Be willing to consider new suppliers if needed
- Incentivize manufacturers who step forward

*Market demand can influence the market faster than regulations or legislation*
Contact

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Food and Foodware

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