

SAFER SEATING

Finding Furniture Free of Flame Retardants, Formaldehyde and Other Toxic Chemicals



RPN Webinar
December 15, 2015

Who is RPN?

Nonprofit network

- States
- Local governments
- Federal agencies
- Colleges and universities
- School districts
- Businesses
- Non-profits



RPN Mission

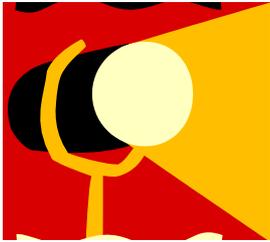
“Promote and practice responsible purchasing by identifying best practices, developing effective purchasing tools, educating the market, and using our collective purchasing power to maximize environmental stewardship, protect human health, and support local and global sustainability.”

Have a Question?

Submit your questions by typing them into the **Questions Box** in your GoToWebinar application.

We will compile and answer them during the Q&A session at the end of the webinar.





Overview

- **Which toxic chemicals are found in furniture products?**
- **How can purchasing agents identify and procure safer furniture products?**
- **How are new flame retardancy standards and tools making it easier to buy flame retardant-free furniture?**
- **What steps should purchasers take to develop specifications, evaluate bids, and promote safer furniture products on their contracts?**

Contaminating Our Bodies With Everyday Products

 **Nicholas Kristof** NOV. 28, 2015



Activists in Paris protest the use in common household products linked to endocrine disruption in March 2014. Bertrand Guay/Agence France-Presse — Getty Images

IN recent weeks, two major medical organizations have issued independent warnings about toxic chemicals in products all around us. Unregulated substances, they say, are sometimes linked to breast and prostate cancer, genital deformities, obesity, diabetes and infertility.

“Widespread exposure to toxic environmental chemicals threatens healthy human reproduction,” the International Federation of Gynecology and Obstetrics warned in [a landmark statement](#) last month.

The warnings are a reminder that the chemical industry has inherited the mantle of Big Tobacco, minimizing science and resisting regulation in ways that cause devastating harm to unsuspecting citizens.

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Tests Find More Than 200 Chemicals in Newborn Umbilical Cord Blood

Study commissioned by environmental group finds high levels of chemicals in U.S. minority infants

By Sara Goodman | December 2, 2009

U.S. minority infants are born carrying hundreds of chemicals in their bodies, according to a report released today by an environmental group.

The Environmental Working Group's study commissioned five laboratories to examine the umbilical cord blood of 10 babies of African-American, Hispanic and Asian heritage and found more than 200 chemicals in each newborn.



Types of Office Furniture

- **Chairs**
- **Couches**
- **Desks/Mobile work stations**
- **Tables**
- **Modular systems**
- **Bookcases**
- **Filing cabinets**
- **Beds**
- **Dressers and Stand-up Closets**



Polling Question #1

Does your organization avoid any toxic chemicals when purchasing furniture?

Vote now.



Jean Hansen,

LEED Fellow, FIIDA, CID, AAHID, EDAC
HDR Architecture

Jean Hansen is the Sustainable Principal for HDR Architecture's Sustainable Design Solutions team and firm globally; based in San Francisco, California with **30+ years of experience in interior design, planning and sustainable design**. Ms. Hansen is responsible for advancing HDR's sustainability initiatives in project and research work for healthcare, commercial and institutional environments. She has worked on the development of many nationally recognized sustainable resources and **was a core committee member in the development of the USGBC's LEED Healthcare rating system, the Health Product Declaration (HPD) and BIFMA's sustainable furniture standards, e3 and level.**



Growing Concern for Healthy Interiors

Chemicals of Concern:

- Flame retardants
- Formaldehyde
- Perfluorinated chemicals
- PVC (vinyl)
- Heavy Metals
- Hexavalent Chromium





Toxic Chemicals Found in Furniture

Flame retardants: Electronics, Insulation, Foam, Wires & Cabling, Plastics

PVC/Vinyl: Mattress coverings, Furniture, Fabrics, Wires & Cabling

Formaldehyde (added): Furniture, Fabric Finishes, Adhesives for multiple wood products

PFCs: Furniture, Fabrics

Antimicrobials (added): Furniture, Fabrics, Wood and Plastic Finishes

Heavy metals: Furniture, Fabrics, Dyes, Wires & Cabling, Lighting (lead, mercury, cadmium, antimony)

Hexavalent Chromium: Furniture (plated finishes)



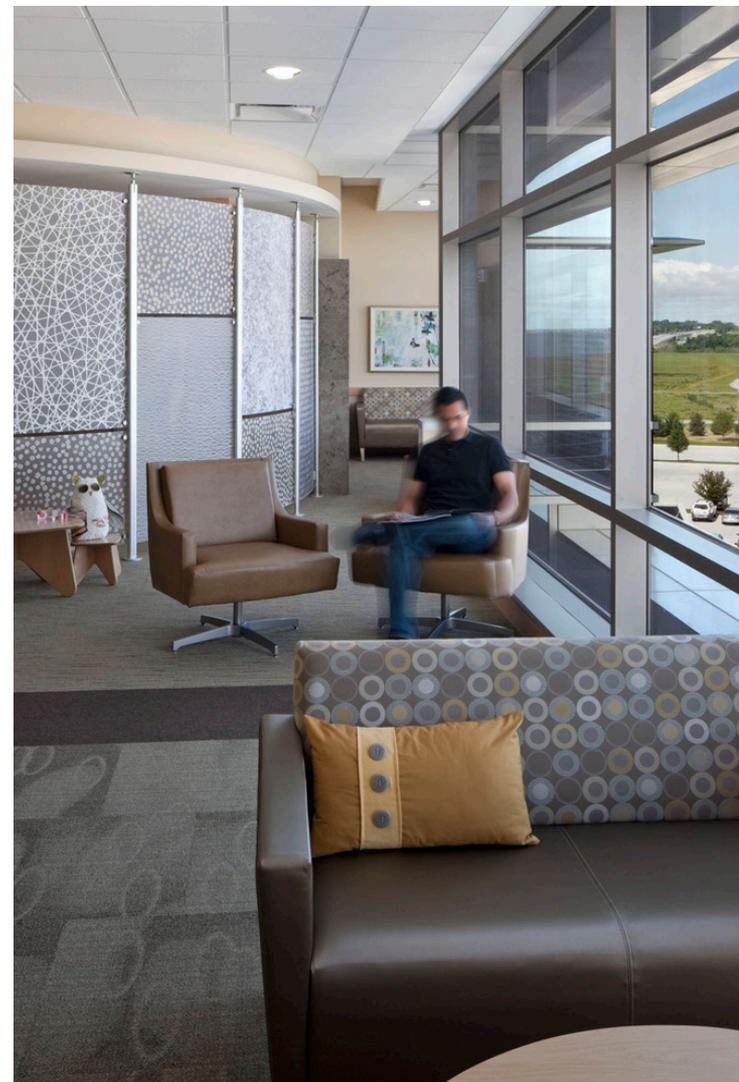
Polyvinyl Chloride (PVC) or Vinyl

Guidance

- Products must not contain PVC
- Small components exemption: >1% of product by weight

Rationale

- Can create persistent, bioaccumulative, and toxic byproducts in manufacture and at end of life
- Carcinogenic and highly toxic chemicals in manufacture
- Requires use of additives (lead, phthalates)



Formaldehyde

Guidance

- Acceptable certifications for low-emitting furniture
 - Cradle to Cradle
 - SCS Indoor Advantage
 - UL GREENGUARD Gold
 - Comply with BIFMA e3-2011 Furniture Sustainability Standard or level (Sections 7.6.1 and 7.6.2)

Rationale

- Known human carcinogen
- Prop 65 carcinogen
- Gastrointestinal or liver toxicant
- Reproductive toxicant
- Respiratory toxicant, asthma trigger (respiratory sensitizer)



Perfluorinated Compounds (PFCs)

Guidance

- Must not use stain or water repellent treatments that contain PFCs

Rationale

- Most manufactures moved from C8 to C6 chemistry (Shorter-Chain PFCs)
- Still persistent in environment and bioaccumulative in people and wildlife
- Long half-life in animals (some less than C8s but they differ), not known for humans
- Emerging Health Information
 - Endocrine disruptors
 - Carcinogenic
 - Reproductive and developmental toxicant



Antimicrobials

Guidance

- Must not contain triclosan, triclocarban, or any other antimicrobials

Rationale

- Based on current research, very limited evidence that the addition of antimicrobials to furnishings reduces rate of (hospital acquired infections) HAIs
 - Emerging research on the efficacy of copper on high-touch surfaces
- Antimicrobials can have toxic properties without adequate data on health impacts
- Can lead to development of antimicrobial-resistant organisms that may pose greater hazards





BULLETIN #: 2015-05

Approved By: John Kouletsis, AIA, EDAC,

National Facilities Services, Vice President, Facilities Planning and Design

Topic: Prohibition of Antimicrobial Chemicals in Fabrics, Furniture and Finishes

Date Issued: October 15, 2015

Contact: Jennifer MacDaniel

ITEM TYPE:

- New
- Modification
- Lesson Learned

BULLETIN TYPE:

- Recommended
- Required: see exceptions below

PROGRAM ELEMENT(S)

IMPACTED: *(Check all that apply)*

- Space Program
- Functional Program
- Room Templates
- Design Criteria
- Sourcing Strategy
- MedAsset/KP Select
- Equipment/Furniture
- Signage
- Other—
- not applicable

POTENTIAL IMPACT TO COST

MODEL:

- Yes
- No
- Not Applicable

Additional Comments:

[Light green comment box]

POTENTIAL IMPACT TO PROJECT

BUDGET:

- Yes
- No
- Not Applicable

Additional Comments:

[Light green comment box]

BRIEF DESCRIPTION OF CHANGE:

Effective immediately, specification of antimicrobial chemical additives or treatments for fabric, furniture, and finishes are prohibited on any Kaiser Permanente project. This prohibition includes all Main Loan Fund, PM&R and Expense projects.

What's Changing:

As part of an on-going mission to protect public health, Kaiser Permanente seeks to eliminate the specification of antimicrobial chemicals in the projects that we design and build.

Our furniture and fabric vendor partners have been notified of our goal to eliminate the following 13 antimicrobial chemicals or elements:

1. Benisothiazolin 3-one (BIT)
2. Didecyl dimethyl ammonium chloride (DDAC)
3. Diiodomethyl p-tolyl sulfone
4. Hexamethylenetetramine
5. Kathon 886 (CIT/MIT mixture)
6. Methylchlorothiazolinone (CIT, CMIT)
7. Methylisothiazolinone (MIT)
8. N-octadecyldimethyl (3-(trimethoxysilyl) propyl) ammonium chloride
9. Silver (nano)
10. Silver sodium hydrogen zirconium phosphate
11. Silver zinc zeolites
12. Triclosan
13. Zinc Pyrithione

Heavy Metals

Guidance

- Must not contain heavy metals including mercury, cadmium, lead and antimony (less than 100 ppm)
- Cradle to Cradle and BIFMA address this in specific credits

Rationale

- Persistent bioaccumulative toxic (PBT) chemicals
- Contribute to
 - Cancer
 - Endocrine disruption
 - Brain and nervous system damage
 - Birth defects
 - Impaired childhood development



Hexavalent Chromium

Guidance

- Must not contain hexavalent chromium in plated finishes
- Less than 100 ppm

Rationale

- Recognized human carcinogen
- Respiratory sensitizer asthmagen (AOEC)
- Alternative materials exist for alternates
 - Stainless steel
 - Anodized aluminum
 - Powder coated



Market Support

Drivers: Resources, Tools



Rating Systems

- LEED Credits
 - LEED for Commercial Interiors
 - EQc4.5, low-emitting
 - LEED for Healthcare
 - MRc5, low-emitting, chemicals of concern
- Living Building Challenge – Red List
- WELL Building Standard



Healthier Hospitals Initiative (HHI): Healthy Interiors Chemicals to Avoid Minimum 30% to Meet HHI Challenge

Polyvinyl chloride (PVC) or Vinyl

Formaldehyde (added)

Perfluorinated compounds (PFCs)

Antimicrobials (added)

Flame retardants

<http://healthierhospitals.org/hhi-challenges/safer-chemicals/list-furniture-and-materials-meet-hh-healthy-interiors-goal>



A PRACTICE GREENHEALTH PROGRAM

Allsteel®

Gunlocke®

HAWORTH®

HermanMiller

HON.



Knoll

Steelcase

enviroleather®
by LOI®



naturepedic®


NATIONAL
Furniture with Personality®

OFS BRANDS



Stinson



HHI 2.0 Compliant Products from Herman Miller

Furniture described herein meets the Healthy Interiors goal of the Safer Chemicals Challenge according to the manufacturer. Practice Greenhealth does not verify manufacturer information:

Ensure that 25% of the annual volume of freestanding furniture and medical furnishings, purchased, based on cost.

- Halogenated Flame Retardants (HFR): must contain < 1000 ppm by wt intentionally added HFR of the homogenous material. NOTE: now requiring no Flame Retardants (FRs) (where code allows)
- Formaldehyde: comply with ANSI/BIFMA e3-2011 7.6.1 and 7.6.2.
- PFCs: Must not use stain-repellant treatments that contain perfluorinated compounds.
- PVC: Products must not contain PVC, components that constitute less than 1% of the product by weight are exempt.
- Antimicrobials: Must have published data showing HAI (Healthcare Acquired Infection) reductions and antimicrobial must be EPA registered.

*PVC in electronics are exempt from HHI

Product Meets Criteria (Yes/No)

FR	Formaldehyde	PFC	PVC	Antimicrobials	Exceptions
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Seating

Product	FR	Formaldehyde	PFC	PVC	Antimicrobials	Exceptions
Aeron	Complies	Complies	Complies	Complies	Complies	CAL 133 version
Caper	Complies	Complies	Complies	Complies	Complies	Colored armpads
Embody	Complies	Complies	Complies	Complies	Complies	CAL 133 version; High performance antimicrobial textile option
Mira	Complies	Complies	Complies	Complies	Complies	CAL 133 version; High performance antimicrobial textile option
Mira2	Complies	Complies	Complies	Complies	Complies	CAL 133 version; High performance antimicrobial textile option
Public Office Landscape Social Chair	Complies	Complies	Complies	Complies	Complies	
Sayl	Complies	Complies	Complies	Complies	Complies	Colorguard vinyl; CAL 133 version; High performance antimicrobial textile option, Colored armpads
Setu	Complies	Complies	Complies	Complies	Complies	Colorguard vinyl; CAL 133 version;



Product Meets Criteria (Yes/No)

Product	FR	Formaldehyde	PFC	PVC	Antimicrobials	Exceptions
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Furniture

Canvas Office Landscape Wall-Based	Complies	Complies	Complies	Complies	Complies	Curved edge laminate worksurfaces
Canvas Office Landscape Dock-Based	Complies*	Complies	Complies	Complies	Complies	Curved edge laminate worksurfaces; *Flame retardant under 1000ppm of product, required to meet UL electrical requirements
Canvas Office Landscape Beam-Based	Complies	Complies	Complies	Complies	Complies	Curved edge laminate worksurfaces
Canvas Office Landscape Storage-Based	Complies	Complies	Complies	Complies	Complies	Colorguard Vinyl on Cushion Top
Public Office Landscape	Complies	Complies	Complies	Complies	Complies	Colorguard Vinyl; High performance antimicrobial textile option
Renew Sit-to-Stand Tables	Complies	Complies	Complies	Complies*	Complies	Curved edge laminate worksurfaces
Meridian Storage	Complies	Complies	Complies	Complies	Complies	Colorguard Vinyl on Cushion Top
Tu Storage	Complies	Complies	Complies	Complies	Complies	Colorguard Vinyl on Cushion Top
Tu Storage: L-Series	Complies	Complies	Complies	Complies	Complies	Colorguard Vinyl on Cushion Top
Eames Tables	Complies	Complies	Complies	Complies	Complies	Laminate worksurface; plastic edge veneer worksurfaces
Everywhere Tables	Complies	Complies	Complies	Complies	Complies	Curved edge laminate worksurfaces
Compass System	Complies	Complies	Complies	Complies	Complies	3-D laminate
Nala	Complies	Complies	Complies	Complies	Complies	Colorguard Vinyl; High performance antimicrobial textile option
Co/Struc System	Complies	Complies	Complies	Complies	Complies	Curved edge laminate worksurfaces

Nemschoff

Steps	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Monarch Tables	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Monarch (894-10)	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Harmon	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Altair Side Chair	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Altair Plus Side Chair	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Altair Arm Chair	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Capella Coffee Table	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery
Capella Chair	Complies	Complies	Complies	Complies	Complies	Vinyl upholstery; PFC and antimicrobial upholstery

Seating

Steelcase



Amia

1, 2, 3, or
no upholstered
arm caps



Cachet

No upholstered
seat or back



cobii

1, 2, 3



Gesture

1, 2, 3



Leap

1, 2, 3,
no Leap Plus
or Leap Stool



Move

1 or no
cushioned back



Node

No CAL133
compliant chairs



QiVi

1, 2, 3



Reply

1, 2, 3



Siento

1, 2, 3, or
no headrest



Snodgrass

1, 2, 3



Think

1, 2, 3

Coalesse

CASE STUDY ► Safer Chemicals

Eliminating HHI Chemicals of Concern for Healthy Interiors at Beaumont Health System

Beaumont[®] | HEALTH SYSTEM

Benefits

- Over \$1M in annual spend dedicated to avoiding HHI-identified chemicals of concern
- 26 percent of all furnishings purchased avoid HHI chemicals of concern meeting the goals of the HHI Healthier Interiors Challenge
- Cost reduction of 10 percent on IT project from converting to new workstation system from Haworth that avoids chemicals of concern
- Reduction of exposure to hazardous chemicals by building occupants, patients, staff and the community
- Worked with Haworth to increase furniture purchased without HHI priority chemicals from 43 percent of dollars spent to a new total of 63 percent healthy interiors furniture purchased in one year

Certifications and Resources for Furniture/Fabric

Multi-attribute Certification

- C2C (3rd party)
- BIFMA level (3rd party)
- BIFMA e3 (self-certified)



Multi-attribute Disclosure

- Declare (self-certified)
- HPDs (self-certified)



https://www.asid.org/sites/default/files/ASID_Guide_to_Ecolabels_2011.pdf

Single-attribute

- SCS Indoor Advantage (emissions)
- UL GREENGUARD Gold (emissions)
- SCS Recycled Content (recycled content)



Wood

- FSC (multi-attribute) (preferred)
- SFI (multi-attribute) (less valued)



Textiles

- C2C (multi-attribute)
- SCS Recycled Content (single attribute)



Q & A



Jean Hansen

Sustainable Principal

HDR Architecture

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Polling Question #2

Has your organization adopted a policy restricting the purchase of products with flame retardant chemicals?



Vote now.



CEH

center for environmental health

ELIMINATING THE USE OF UNNECESSARY FLAME RETARDANT CHEMICALS

Responsible Purchasing Network Webinar

12/15/15

Center for Environmental Health (CEH)

A non-profit organization dedicated to protecting public health from exposures to toxic chemicals.

The Center for Environmental Health works with large purchasers to utilize their buying power to incentivize the production of environmentally preferable products

www.ceh.org

Judy Levin, MSW

Judy Levin is the Pollution Prevention Director at CEH. She works closely with large purchasers including government, higher education, health care organizations and corporations to identify and procure environmentally preferable products in order to use their purchasing power to move the market towards safer products.



Judy has been leading the Center's campaign to reduce the use of flame retardant chemicals for the past 8 years. She is the author of a purchaser guide on flame retardant-free furniture called **KICKING TOXIC CHEMICALS OUT OF THE OFFICE.**

Most recently, Judy helped author a successful flame retardant disclosure bill that requires furniture manufacturers to label their products as to the presence or absence of flame retardant chemicals.

Flame Retardants



What are flame retardants?

Inhibit ignition or spread of flames

Where are flame retardants used?

- ✓ Electronics
- ✓ Building Insulation
- ✓ **Foam Furniture**
- ✓ Wires and Cabling

Health Effects of Flame Retardants

Neurodevelopmental Effects

Decreased memory and learning
Reduced IQ
Hyperactivity

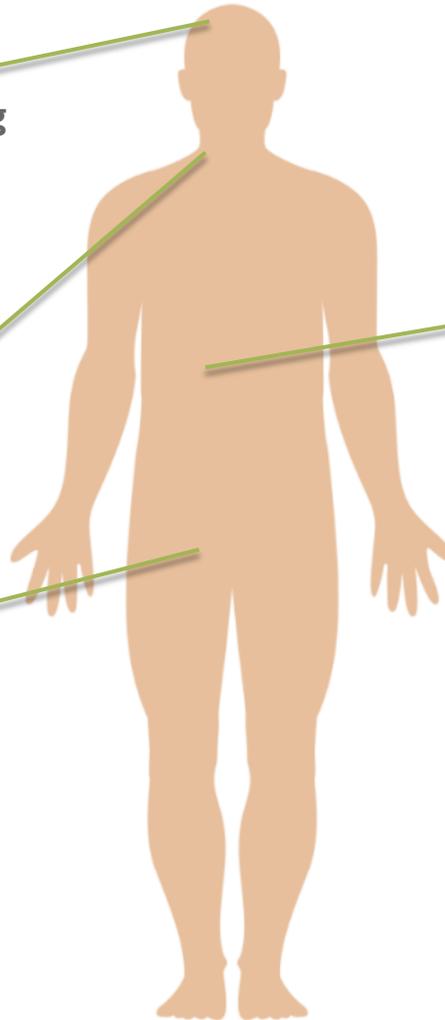
Endocrine System Disruption

Obesity
Chemicals that mimic estrogen
Alters thyroid hormone

Reproductive Toxicant

Decreased fertility
Decreased birth weight
Decreased sperm quality

Diabetes
Cancer



Flame Retardants are Ubiquitous



How are We Exposed?

- Ingestion of contaminated dust particles
- Ingestion of food, especially meat and dairy
- Occupational exposure

Unique to Children

- Absorption across the placenta
- Breast milk
- Frequent hand-to-mouth activity



Occupational Exposures

- Fire Fighters/First Responders
- FRC Manufacturing Workers
- Foam Workers
(manufacturers, installers and recyclers)



Sources of Exposure

WORK



HOME



Flame Retardants: Lack of Fire Safety Benefit

- **No** significant difference in fire growth between foam with flame retardants formulated to pass TB 117 and untreated foam.

Source: U.S. Dept. of Commerce, National Bureau of Standards.

- Chairs with flame retardant foam offered **no** practically significant difference than those without FR-treated foam. Source: CPSC, 2012.

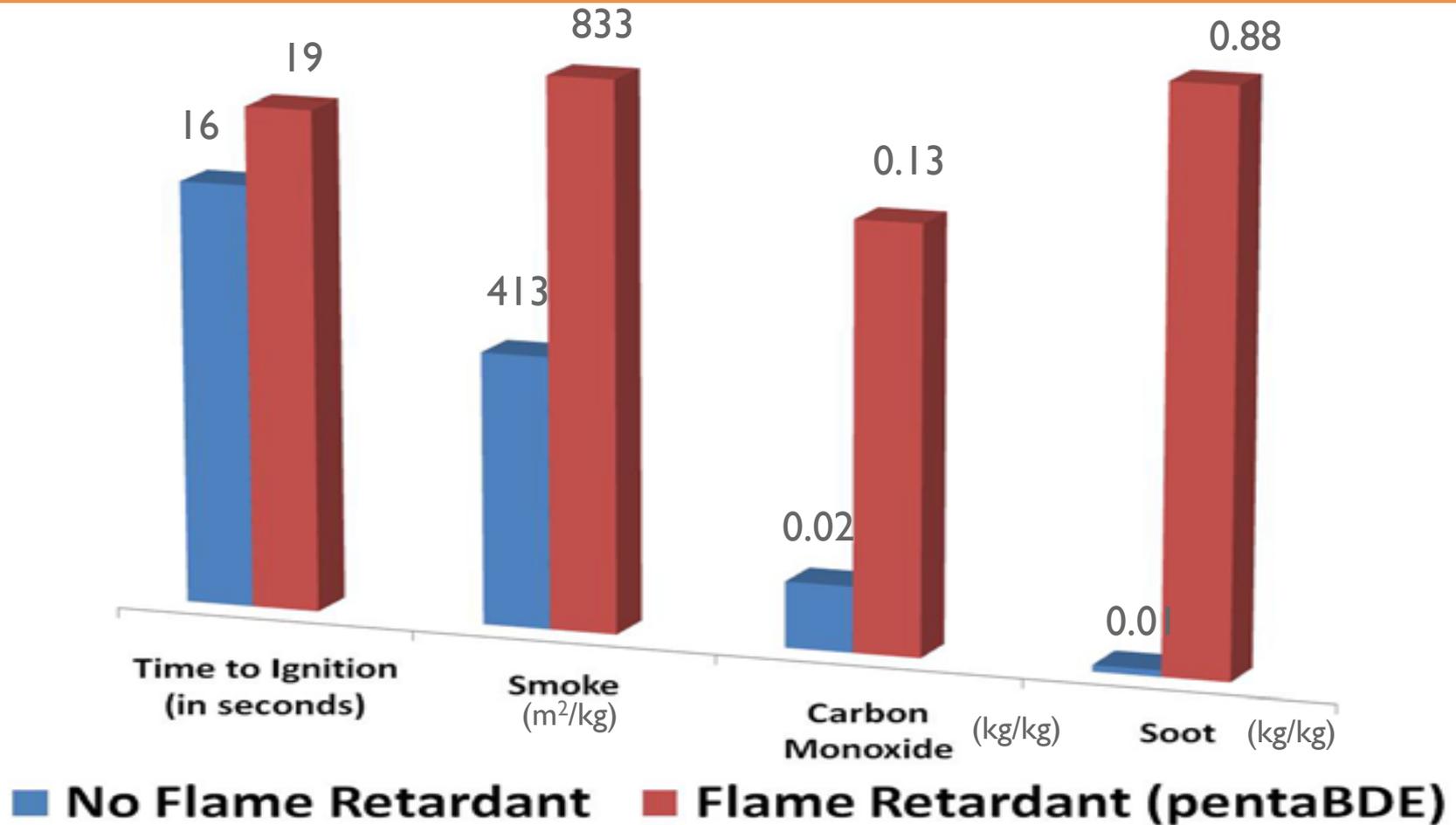


Additional Considerations

- Presence of Automatic Fire Sprinklers in Buildings
- People not allowed to smoke
- No fire data supports need for flame retardant chemicals in office furniture

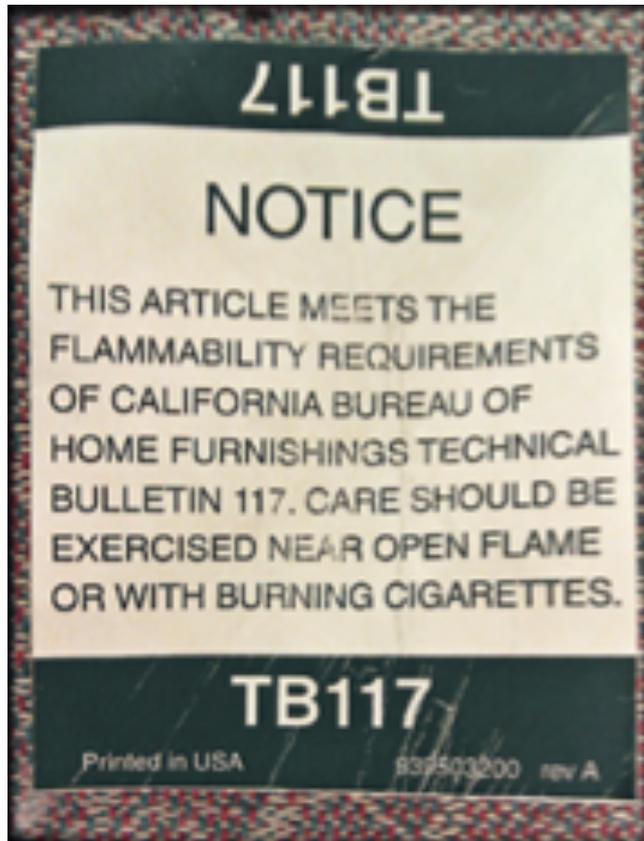


Toxic Gases May Make Fires Less Survivable



Source: Chandra Jayakody, et al. J. Fire Sciences, Vol. 18, pp 430-455, 2000

Furniture Flammability Regulations



Technical Bulletin 117 (TBI17)

Tests Bare Furniture Foam



- The filling inside upholstered furniture must resist a small open flame for 12 seconds
- Flame retardants are added to polyurethane foam so it can pass this test

Does not
consider real
life scenario



TB117-2013: Smolder Test on Fabric



- Addresses smoldering ignition, which is the leading cause of furniture fire deaths
- Focus on fabric where fires actually start, more realistic
- Flame retardants are not needed

Increased fire safety without toxicity

TB 117-2013 \neq Flame Retardant Free

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- **New standard provides way to pass new test without FRs**
BUT.....
- **Does not prohibit the use of FRs**
- **You must ask the manufacturer about their use of FRs**



New Labeling Requirement: Required in California, Largely Adopted Nationally

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NOTICE
THIS ARTICLE MEETS THE FLAMMABILITY
REQUIREMENTS OF CALIFORNIA BUREAU OF
ELECTRONIC AND APPLIANCE REPAIR, HOME
FURNISHINGS AND THERMAL INSULATION
TECHNICAL BULLETIN 117-2013. CARE SHOULD BE
EXERCISED NEAR OPEN FLAME OR WITH BURNING
CIGARETTES.

The upholstery materials in this product:
 contain added flame retardant chemicals
 contain NO added flame retardant chemicals

The State of California has updated the
flammability standard and determined the fire
safety requirements for this product can be met
without adding flame retardant chemicals. The
State has identified many flame retardant
chemicals as being known to, or strongly suspected
of, adversely impacting human health or
development.

Technical Bulletin 133



Seating Furniture for Public Buildings or Assembly Areas

CA includes:

- Hospitals, health care facilities, nursing homes, board and care homes, convalescent homes
- Jails, prisons, penal institutions
- Stadiums, auditoriums
- Public assembly areas of hotels/motels



PURCHASER TOOLS

- Letter for Suppliers
- Purchaser Pledge
- Technical Specifications
- Fact sheet
- Furniture Survey
- List of FR-Free Furniture
- Webinar



SIGN THE PLEDGE!



Purchaser Pledge Signers

The \$1 Billion Purchaser Power Challenge



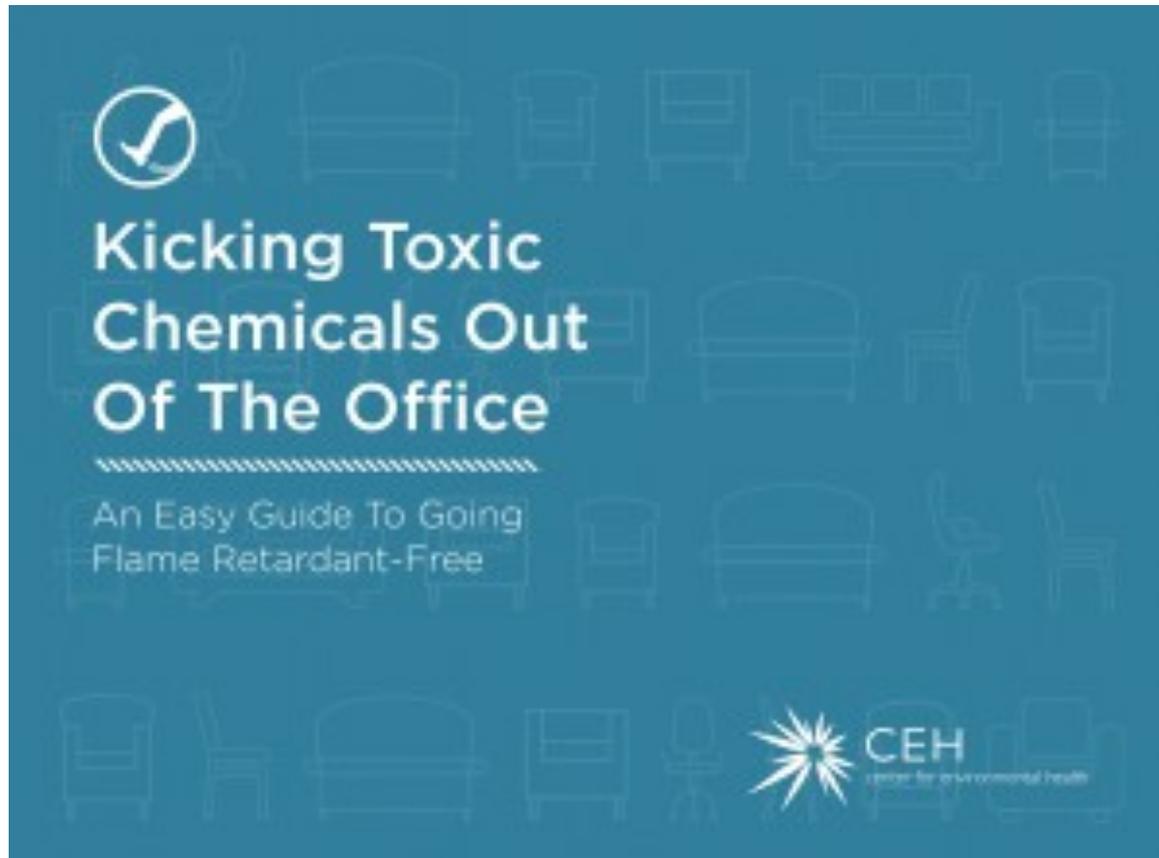
MASSACHUSETTS



PERKINS + WILL



Resource Guide



www.ceh.org/office-furniture

Manufacturers with All Upholstered Furniture Flame Retardant-Free

Andreu World
arcadia

DARRAN

DAVID EDWARD

Exemplis® | SitOnIt Seating®
IDEON®

fc freshcoast



HAWORTH®



Leland

Martin Bratrud



WIELAND

9to5
seating
49



Manufacturers with Some Upholstered Furniture Flame Retardant-Free



OFS BRANDS



HermanMiller

Steelcase

 **AMERICAN SEATING**

Teknion

Prison Industry Major Furniture Provider



Oregon Corrections Enterprises



Why Make the Switch?

- **Reduced toxics** in environment
- Concern for employee, visitor and community **health**
- Potential **cost savings**
- Consistent with organizational **mission/values**
- **Success story** for sustainability report
- Businesses can influence the market **faster than regulations** or legislation





NEXT STEPS/Q&A

- Call Judy Levin for assistance on implementation

Judy Levin, MSW

Center for Environmental Health

Pollution Prevention Director

(510) 655-3900 ext. 316

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BLUE CROSS BLUE SHIELD OF MASSACHUSETTS



MASSACHUSETTS

KYLE CAHILL, DIRECTOR,
SUSTAINABILITY & ENVIRONMENTAL HEALTH

Safer Seating Webinar
December 15, 2015

Kyle Cahill is Director of Sustainability & Environmental Health at Blue Cross Blue Shield of Massachusetts where he is responsible for the company's sustainability strategy, programs focused on improving the environmental health of members and MA communities, and sustainability collaborations within the broader health care industry.



MASSACHUSETTS

Prior to Blue Cross Blue Shield, Kyle was Senior Program Officer at Oxfam America, leading the organization's work on poverty footprinting, a process for organizations to measure, analyze and improve their impacts on communities.

Prior to joining Oxfam, Kyle was Director of Corporate Engagement at Environmental Defense Fund (EDF), where he worked with the private sector on environmental initiatives addressing climate change, safer products and materials, water use and waste reduction.

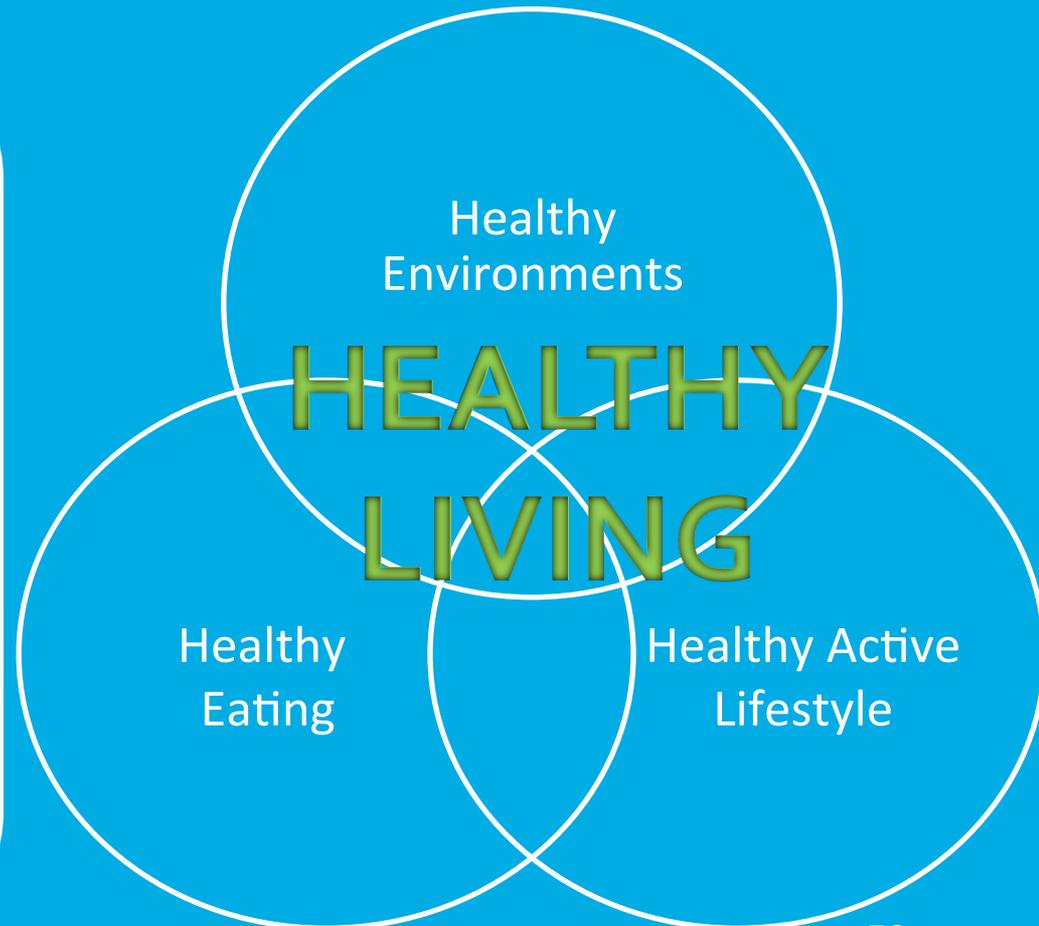
Kyle earned his M.B.A. focused in social responsibility from the Isenberg School at the Univ. of Massachusetts, Amherst and his B.A. from Amherst College.

CORPORATE CITIZENSHIP



MASSACHUSETTS

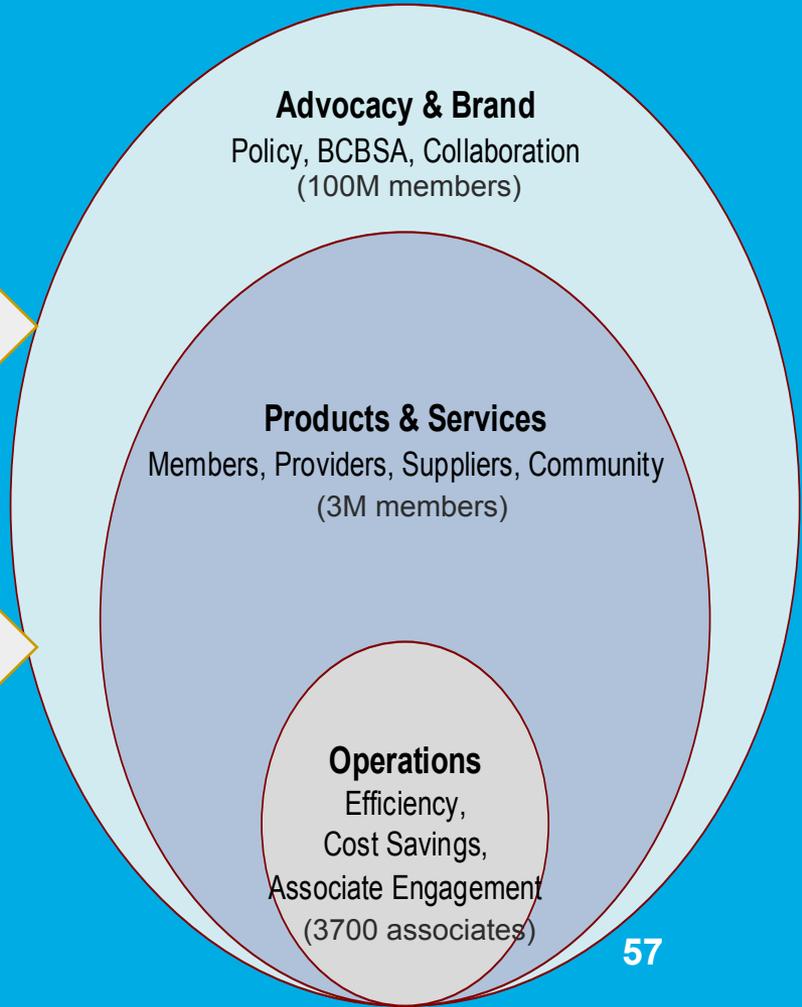
Continuously making positive decisions and participating in experiences that enhance your health and quality of life.



SUSTAINABILITY MODEL



MASSACHUSETTS



HEALTHY WORKPLACE OVERVIEW



MASSACHUSETTS



NEW BCBSMA HEADQUARTERS



MASSACHUSETTS

Collaboration

Increased idea sharing and serendipitous innovation

Health

A workplace that supports positive choices and inner work-life

Sustainability

An efficient, green, non-toxic workplace

- Downtown Boston
- Approximately 1,000 employees
 - 330,000 sq. ft.
 - 14 floors
- ENERGY STAR/LEED EBOM

FR-FREE CHALLENGES



MASSACHUSETTS

- The design and furniture procurement process for the new Blue Cross office was well underway.
- Few furniture suppliers had been asked to fulfill a flame retardant-free furniture purchasing order of the size needed.
- The Boston fire code wasn't going into effect until 2015 and needed interpretation.
- No Boston companies of this size had purchased flame retardant-free furniture.

FR-FREE STRATEGY



MASSACHUSETTS

1. Engaged CEH and others on the issues around flame retardants and workplace health and safety
2. Shared the issues and concerns with internal stakeholders
3. With the real estate team, reviewed the furniture purchasing timeline and options
4. Contacted furniture vendors, reviewed options and estimated cost and production impacts
5. Engaged the Boston Fire Department to review the fire code and latest regulatory policy interpretations
6. Consulted with office building owner to confirm that they were comfortable with the project
7. Engaged executive steering team and gained approval



Martin Brattrud



RED THREAD



RESULTS



MASSACHUSETTS



- Approx. 3,000 chairs and over 1,500 workstation cushions FR-free (assembly spaces not included)
- No additional cost and minimal changes
- First Boston office of its size to prioritize flame retardant chemicals in its office space
- Engaging with area universities, nonprofits, hospitals, architects and engineers in their efforts to go flame retardant-free
- 2020 goal of FR-free throughout the entire company

LESSONS LEARNED



MASSACHUSETTS



- Communicating the ineffectiveness of flame retardant chemicals is as important as communicating concerns around their health effects
- Most sustainability professionals, property owners and real estate teams are not aware of the dangers of flame retardant chemicals
- More vendors than expected were able to offer flame retardant-free furniture
- Architects and designers are an important lever for the movement away from flame retardants and should be prioritized for collaboration

FLAME RETARDANT EFFORTS



MASSACHUSETTS

1. Signed the Center for Environmental Health's Purchaser Pledge
2. Purchased as much furniture as possible that meets a new CA 117-2013
3. Amended our company-wide furniture purchasing policy so that all future furniture purchases will be FR-free
4. Supported several screenings of the documentary *Toxic Hot Seat* across various cities and towns in MA in 2015
5. Testified at a recent Boston City Council hearing in favor of updating the City's fire code
6. Engaging sustainability leaders, real estate owners and the design community on the issue



UNDER PENALTY OF LAW THIS
TAG NOT TO BE REMOVED
EXCEPT BY THE CONSUMER

ALL NEW MATERIAL
consisting of
100% POLYURETHANE FOAM PAD

Reg No CA 36865 (NJ)

Certification is made by the manufacturer
that materials in this article are described in
accordance with the law.

Made by Humanscale
220 Circle Drive North,
Piscataway, NJ 08854

Date of Delivery _____

Made in U.S.A. of Imported
and Domestic Materials

THIS PRODUCT MEETS THE
REQUIREMENTS OF BUREAU OF
ELECTRONIC AND APPLIANCE REPAIR,
HOME FURNISHINGS AND THERMAL
INSULATION TECHNICAL BULLETIN
117-2013

The upholstery materials in this product:
contain added flame retardant chemicals
contain NO added flame retardant chemicals

The State of California has updated the
flammability standard and determined that
the fire safety requirements for this product
can be met without adding flame retardant
chemicals. The state has identified many
flame retardant chemicals as being known to,
or strongly suspected of, adversely impacting
human health or development.

Q & A



KYLE CAHILL
DIRECTOR, SUSTAINABILITY & ENVIRONMENTAL HEALTH
BLUE CROSS BLUE SHIELD OF MASSACHUSETTS
KYLE.CAHILL@BCBSMA.COM

Polling Question #3

How does your organization most often purchase furniture?

Vote now.



Green Purchasing Best Practices: Office and Dorm Furniture



[www.responsiblepurchasing.org/
purchasing_guides/furniture/
naspo_rpn_furniture_purchasing%20_gu
ide.pdf](http://www.responsiblepurchasing.org/purchasing_guides/furniture/naspo_rpn_furniture_purchasing%20guide.pdf)

Before Bidding



Assess which products are needed:

- **Create Furniture Contract Development Team**
- **Review historical purchases/future needs**
- **Determine performance (e.g. ergonomic, safety, flammability, or material requirements for the products**
- **Agree on procurement methods (e.g., existing cooperative price agreement, RFP, multiple award)**
- **Define scope of the contract**
- **Develop list of high-volume items for your contract**

Develop Specifications

- **Conduct a benchmarking assessment**
 - State of California included multi-attribute sustainability requirements in its bid solicitation for institutional furniture
 - Eugene, OR has specifications for reupholstering/refinishing
- **Assess applicable sustainability policies**
- **Create mandatory requirements**
 - Positive attributes (e.g., acceptable certifications)
 - Negative attributes (e.g., prohibiting chemicals of concern)
- **Develop sample bid (or market basket) list**





Create Vendor Survey

- **Assess additional desirable attributes of PRODUCTS**
 - Products with post-consumer recycled content
 - Products with wood that has been certified by FSC
 - Products with additional certifications beyond those required
 - Products with an HPD (or EPD)
- **Assess additional desirable attributes of VENDORS**
 - Vendors that offer furniture takeback (collection/recycling)
 - Vendors that deliver products with sustainable transportation methods
 - Vendors that ships products with sustainable packaging
 - Vendors that manufacture products using renewable energy



Evaluate Bids

- **Verify compliance of products with mandatory criteria by reviewing third-party certification information provided in bids (or check certifier list)**
- **Factor in additional health & environmental benefits along with product availability, performance, price, etc.**
- **Assign “points” to vendors based on answers to vendor questionnaire**



Sustainable Product Guide

Search For Products

Keyword Search

Evaluation Type +

- Bio-Based Material - Claim Validation
- Building Indoor Air Quality Performance Certification
- ECOLOGO Certification
- Environmental Product Declaration
- Formaldehyde Free - Claim Validation
- GREEN SQUARED
- GREENGUARD Certification
- GREENGUARD Gold Certification
- Landfill Waste Diversion - Claim Validation
- Mold Resistance - Claim Validation
- Multi-attribute Sustainability Certification
- Rapidly Renewable Materials - Claim Validation

Product Category +

Manufacturer / Brands +

Sustainable Credits +

Your Resource for Healthier, More Sustainable Products

This free resource connects you to third-party certified products you can trust. **All products that have achieved certification/validation from UL Environment, including GREENGUARD and ECOLOGO Certified products are listed in this guide.** UL Environment is not affiliated with any manufacturer or product that it certifies/validates.





Sustainable Product Guide

Search For Products

Keyword Search

[Reset Search](#)

20125 results found for **GREENGUARD Gold Certification**

- Evaluation Type** +
- Product Category** +

- Adhesives/Sealants
- Air Filters
- Appliances
- Bathroom Products
- Building Construction Materials
- Cabinetry
- Ceiling Systems
- Cleaning Products/Systems
- Countertops
- Doors
- Electronics

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@NCE/@103S
GREENGUARD
GREENGUARD Gold



@NCE/@176
GREENGUARD
GREENGUARD Gold



@NCE/@203
GREENGUARD
GREENGUARD Gold

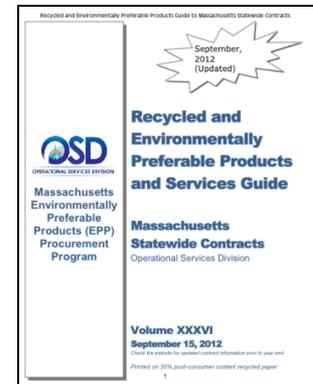
Ask Your Suppliers to...

- **Eliminate unhealthy products from their contracts**
- **Provide you with a list of compliant products**
- **Increase their offerings of healthy products**
- **Make them eligible for deepest discounts**
- **Clearly label sustainability attributes of their products**
- **Conduct training and outreach**
- **Provide “green” spend reports**



Maximize Green Impact

- **Before making a furniture purchase, check your state's surplus program or determine if existing furniture can be reupholstered and refinished instead.**
- **If ordering furniture with lighting systems, require LEDs.**
- **Promote availability of healthy furniture to contract users.**
- **Track your purchases of healthy and remanufactured/refurbished furniture to share your green purchasing successes.**



Healthy Purchasing for Health Schools Guide



Coalition *for* Healthier Schools

*...providing the national platform and
the forum for environmental health at school, since 2001...*

Coordinated by Healthy Schools Network

Healthy Purchasing for Healthy Schools

A Guidance Memo

Green Cleaning + Five More Product Categories to Help Make Schools Healthier

[www.healthyschools.org/documents/
CHS_healthypurchasinghealthyschools.pdf](http://www.healthyschools.org/documents/CHS_healthypurchasinghealthyschools.pdf)

Thank you!



Alicia Culver

Executive Director

Responsible Purchasing Network

alicia@responsiblepurchasing.org

510-547-5475