

Resources for Cities



On a regular basis, cities inadvertently purchase a wide range of products and services that can contain toxic chemicals harmful to people's health. These chemicals can be found in everyday items ranging from cleaning products to furniture to foodware. **However, for many of these product categories, safer, affordable alternatives exist.**

Health risks associated with toxic chemicals include reproductive issues, autoimmune conditions, metabolic disorders, respiratory issues, neurodevelopmental harm, and cancer.¹ Chemical contamination and exposure can also create financial and legal liability for local governments. For example, with the current discovery of per- and poly-fluoroalkyl substances (PFAS) contamination in many water sources, local municipalities may incur legal fees and expensive remediation efforts.² Products containing toxic chemicals are also more difficult to dispose of or repurpose and can incur additional disposal costs.

Shifting municipal procurement to environmentally-preferable products and services can result in decreased exposures to anyone that comes on city property.

What is Eco-Friendly Purchasing?

Eco-Friendly Purchasing, also known as sustainable or environmentally preferable purchasing, are policies that promote sourcing and purchasing better goods and services that benefit human health and the environment. Environmentally-preferable products and services can lessen people's exposures to a wide variety of harmful chemicals—and the purchasing decisions that cities make can decrease demand for the extraction, manufacturing, and disposal of toxic chemicals and materials in the first place.













Policy Resources for Cities

Eco-Friendly Purchasing policies can help cities take pragmatic steps toward environmental wins within city procurement. The following resources can help cities develop or improve their Eco-Friendly Purchasing policies:

VIDEO	WEBINARS & RESOURCES	LOCAL SAMPLE POLICIES
<ul style="list-style-type: none"> ▶ CityHealth 2.0: Eco-Friendly Purchasing Overview (CityHealth) ▶ Introduction to Sustainable Purchasing video (Sustainable Purchasing Leadership Council) 	<ul style="list-style-type: none"> ▶ Training module - How to implement sustainable purchasing (University of Michigan) ▶ Webinar - Saving Money by Buying Green (Maryland Department of General Services) ▶ Webinar - Sustainable Procurement Policies Roadmap for building sustainable procurement policies (Ecology Center & Safer States) 	<ul style="list-style-type: none"> ▶ Sample Policy - City of Ann Arbor, Michigan ▶ Sample Policy - City of Phoenix, Arizona

CityHealth's Medal Criteria

CityHealth awards America's largest cities with gold, silver, and bronze medals for their Eco-Friendly Purchasing policies. CityHealth's medal criteria are:

ECO-FRIENDLY PURCHASING MEDAL CRITERIA						
1.	The city has an eco-friendly purchasing policy that requires annual reporting.					
2.	The city has an eco-friendly purchasing policy that meets independent standards for at least one of the following high-priority categories: furnishings, foodware, cleaning products.					
3.	The city's eco-friendly purchasing policy applies to all requests for proposals (RFPs) and contracts.					

BRONZE

Cities earning a bronze medal must have an official Eco-Friendly Purchasing policy that is clear, mandatory, broadly applied, and requires annual reporting. Annual reporting is an excellent tool for catalyzing change and enables more straightforward assessments of city and vendor compliance. A strong policy or ordinance signals to all existing and potential vendors that the city cares about buying products free of toxic chemicals with the goal of lessening exposure for city workers, residents, and visitors.

SILVER

In addition to meeting the bronze criterion, CityHealth's silver medal criterion requires cities to meet minimum performance guidelines in **at least one of the following product categories—furnishings, foodware, or cleaners and disinfectants**. These product categories were chosen because of their abundant use in city settings, their potential for negative health and environmental impacts, and the clear opportunity for cities to purchase safer alternatives.

Foodware

In the foodware product category, cities must meet ALL of the following performance requirements:

1. Prohibit expanded polystyrene (EPS) foam ("Styrofoam") and PFAS in foodware.
2. Prefer reusables
3. Where reusables are not feasible, prioritize foodware that are recyclable or compostable in local facilities.
4. Use Biodegradable Products Institute (BPI) or Compost Manufacturing Alliance (CMA) certifications to define compostable.
5. Require single-use accessories to be made available only upon request.

Disposable foodware is abundant and proliferating. More than 1 million tons of plastic plates, cups, and take-out containers and another 1 million tons of paper plates and cups are generated annually in the U.S. and almost 90% go straight to the landfill.³ In addition to the environmental impact from this massive amount of single-use waste, foodware can contain toxic chemicals that can lead to serious health issues, including reproductive and developmental toxicity, autoimmune and metabolic disorders, respiratory issues, neurodevelopmental effects, and cancer.⁴

Foodware

Sustainable Procurement Resources

RESOURCES & FACTSHEETS:

- [CEH Foodware Homepage \(CEH\)](#)
- [Infographic: Healthier Food Service Ware Choices \(CEH\)](#)
- [Report: Avoiding Hidden Hazards: A Purchaser's Guide to Safer Foodware \(CEH\)](#)
- [Resource: Purchasing Recommendations for Sustainable Food Service Ware \(CEH/ Sustainable Purchasing Leadership Council\)](#)
- [Resource: Single-Use Foodware Database \(PFAS\) \(CEH\)](#)
- [Resource: GreenScreen Certified™ Standard for Single-Use Food Service Ware and Thermal Paper \(CEH\)](#)
- [Resource: GreenScreen Certified™ Standard for Reusable Food Packaging, Food Service Ware and Cookware \(CEH\)](#)
- [Factsheet: Polystyrene Foam, Disposable Food Containers, and Contaminated Food \(CEH\)](#)
- [Factsheet: Fluorinated Additives, Disposable Food, Containers, and Contaminated Food \(CEH\)](#)
- [Toolkit: Ditching Disposables: A toolkit for Healthier foodware in K-12 schools \(CEH\)](#)

WEBINARS:*

- [Toxic Chemicals in Disposable Food Service Ware](#)
- [Ditching Disposables: Healthier Foodware in K-12 Schools](#)
- [Ditching Disposables: Dish Washing and Dish Machines in K-12 Schools](#)
- [Ditching Disposables: Labor, Lunch and Reusables in K-12 schools](#)

Cleaners and Disinfectants

In the cleaners and disinfectants product category, cities must meet ONE OR MORE of the following performance requirements:

- [Green Seal](#)
- [Safer Choice \(EPA\)](#)
- [ECOLOGO® \(UL\)](#)

Cleaning products are necessary to keep indoor environments attractive and healthful by removing dust, allergens, and germs. However, these products can also pose problems for human and environmental health, including eye and skin irritation, hormone disruption, and formation of smog due to volatile organic compounds in the products.⁵ Using cleaners also increases the risk of asthma.⁶ Close to 2.8 million people work as janitors in the U.S., and about 6% of these workers are injured by exposure to cleaning products every year.⁷

Independent and rigorous environmental certifications for cleaners and disinfectants can support an effective and easy-to-implement safer chemicals procurement strategy. CityHealth's performance requirements for cleaners and disinfectants ask cities to use one or more of these comprehensive, credible certifications (eco-labels): [Green Seal](#), [Safer Choice \(EPA\)](#), and [ECOLOGO® \(UL\)](#). These certifications address product formulations, performance, full disclosure of ingredients, restriction of many toxic substances, and more. These certification programs also provide up-to-date product directories where procurement staff and service providers can easily identify available options.

* For the webinars focused on K-12 schools, much of the information can also be applied to broader institutional food service settings.

SILVER (continued)

Many cities utilize cleaning contractors (service providers), rather than employing staff and purchasing products to conduct cleaning operations. It is critically important to clearly communicate that cleaning contractors use only products certified by the certification programs. Service contracts should include the disclosure of all products used by cleaning contractors.

Cleaners and Disinfectants

Certifications (Eco-Labels)

- Green Seal: Standard for cleaners and disinfectants for industrial and institutional use
- Green Seal: Safe disinfecting guidelines
- EPA: Safer Choice
- UL ECOLOGO®: Standard for hard surface cleaners
- UL ECOLOGO®: Standard for disinfectants

Furnishings

In the furnishings product category, furniture, carpet, or flooring must meet ONE OR MORE of the following performance requirements:

FURNITURE	CARPET	FLOORING
<ul style="list-style-type: none">▶ Products must meet the "Targeted Chemical Elimination" criterion (7.4.4) within the <u>ANSI/BIFMA e3-2019 Furniture Sustainability Standard</u>.<ul style="list-style-type: none">• <u>Level certification</u> (even at the highest tier) without proof of conformance to this specific criterion is insufficient to meet the CityHealth furniture policy requirements.▶ <u>Greenhealth Approved Furnishings</u> (Greenhealth Approved/Practice Greenhealth)▶ <u>GreenScreen Certified™ Standard for Furniture & Fabrics</u> (GreenScreen® For Safer Chemicals)	<ul style="list-style-type: none">▶ <u>Greenhealth Approved Carpet</u> (must be at the silver level or above) (<i>Health Care Without Harm</i>)	<ul style="list-style-type: none">▶ <u>Greenhealth Approved Resilient Flooring</u> (must be at the silver level or above) (<i>Health Care Without Harm</i>)▶ <u>Flooring: Carpets & Adhesives</u> (SF Approved)<ul style="list-style-type: none">• Only for hard-backed carpet tiles and adhesives.

Americans spend 90% of their time indoors surrounded by building products and furnishings.⁸ Furnishings—such as furniture, carpeting and flooring—can be unexpected reservoirs of toxic chemicals that affect indoor air quality and health. They can contain common chemicals and materials including toxic flame retardants, volatile organic compounds (including formaldehyde), fluorinated stain treatments (PFAS), heavy metals, and antimicrobials. Conventional carpet and flooring products can contain hazardous coal ash, phthalates, styrene butadiene rubber, and a host of other hazardous substances.^{9,10}

Toxic chemicals can escape from these products and migrate into indoor air and surfaces, where they can be absorbed into the body by breathing or through touch.^{11,12} Chemicals of concern in these product categories have been linked to chronic health conditions such as respiratory illness,¹³ thyroid disruption,¹⁴ elevated total cholesterol,¹⁵ cancer,^{16,17} suppressed immune system,¹⁸ neurodevelopmental problems^{19,20} (including reduced IQ), vaccine resistance,^{21,22} and reproductive issues.²³ To promote a safe and healthy workforce and environment, cities can use the third-party standards specified in CityHealth's performance requirements for furnishings.

Furnishings

Sustainable Procurement Resources

RESOURCES AND FACTSHEETS:

- [CEH Furnishings Homepage \(CEH\)](#)
- Resource: [Healthier Resilient Flooring & Carpet Products \(CEH\)](#)
- Resource: [Healthier Furniture Purchasing Guide \(CEH\)](#)
- Resource: [Environmentally Preferable Furniture Under NASPO ValuePoint Contract \(All States\) \(CEH\)](#)
- Resource: [BIFMA Database for Furniture Meeting Targeted Chemical Elimination Criterion \(7.4.4\) \(BIFMA\)](#)
- Resource: [Database of GreenScreen Certified Furniture and Fabric Products \(Greenscreen\)](#)

WEBINARS:

- [Selecting Healthier Carpet, Flooring, and Furniture: Tips and Tools for Purchasers recording and slides \(CEH\)](#)
- [Antimicrobials in Furnishings in the Time of COVID-19: What we know and don't know about their efficacy recording and slides \(CEH\)](#)
- [Purchasing Fire-Safe Healthier Furniture: Great News & Concerns \(CEH/Green Science Policy Institute/Health Care Without Harm\)](#)
- [What's so Luxurious about Luxury Vinyl Tile? \(CEH\)](#)

MODEL TECHNICAL SPECIFICATIONS:

- [Chemicals of Concern in Furniture \(CEH\)](#)
- [Healthier Resilient \(Hard Surface\) Flooring \(CEH\)](#)
- [Healthier Carpet \(CEH\)](#)

GOLD

In addition to satisfying the bronze and silver criteria, cities aspiring to earn a gold Eco-Friendly Purchasing medal must also require that the city's policy extend to all requests for proposals (RFPs) and contracts that cover the product category directly or indirectly. By including RFPs and contracts in their Eco-Friendly Purchasing policies, cities can ensure that vendors providing cleaning services do not use dangerous chemicals.

Want to learn more or need help with your city's Eco-Friendly Purchasing policy?
Reach out to CityHealth at info@cityhealth.org.

REFERENCES

- 1 US FDA. (2022, February 25). Toxic Elements in Foods and Foodware. <https://www.fda.gov/food/chemical-contaminants-food/toxic-elements-foods-and-foodware>
- 2 US EPA. (2018, November 19). EPA's Local Government Advisory Committee Per- and Polyfluoroalkyl Substances (PFAS). https://www.epa.gov/sites/default/files/2018-11/documents/lgac-pfas_report-nov-2018.pdf
- 3 US EPA, OLEM. (2017, September 7). Nondurable Goods: Product-Specific Data [Data and Tools]. US EPA. <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/nondurable-goods-product-specific-data#tab-7>
- 4 US FDA. (2022, February 25). Toxic Elements in Foods and Foodware. <https://www.fda.gov/food/chemical-contaminants-food/toxic-elements-foods-and-foodware>
- 5 US EPA, OCSPP. (2014, November 20). Greening Your Purchase of Cleaning Products: A Guide For Federal Purchasers [Overviews and Factsheets]. <https://www.epa.gov/greenerproducts/greening-your-purchase-cleaning-products-guide-federal-purchasers>
- 6 Folletti, I., Siracusa, A., Paolucci, G. (2017) Update on asthma and cleaning agents. *Curr Opin Allergy Clin Immunol*, 17(2):90-95. <https://pubmed.ncbi.nlm.nih.gov/28141626/>
- 7 US EPA, OCSPP. (2014, November 20). Greening Your Purchase of Cleaning Products: A Guide For Federal Purchasers [Overviews and Factsheets]. <https://www.epa.gov/greenerproducts/greening-your-purchase-cleaning-products-guide-federal-purchasers>
- 8 US EPA. (August, 1989). Report to Congress on indoor air quality: Volume 2. EPA/400/1-89/001C. Washington, DC. <https://nepis.epa.gov/Exe/ZyPDF.cgi/9100LMBU.PDF?Dockey=9100LMBU.PDF>
- 9 Vallette, J., Stamm, R., Lent, T. (2017). Eliminating Toxics in Carpet: Lessons for the Future of Recycling. Healthy Building Network. <https://s3.amazonaws.com/hbnwebprod/uploads/files/eliminating-toxics-in-carpet-lessons-for-the-future-of-recycling.pdf>
- 10 Gaia, Changing Markets Foundation, Ecology Center. (2018). Testing carpet for toxics: Chemicals affecting human health and hindering the circular economy. <https://changingmarkets.org/wp-content/uploads/2019/07/FINAL-Testing-Carpet-for-Toxics.pdf>
- 11 US EPA. (n.d.). Indoor Semi-volatile Organic Compounds (i-SVOC) Version 1.0. US EPA. <https://www.epa.gov/chemical-research/indoor-semi-volatile-organic-compounds-i-svoc-version-10>
- 12 US EPA. (2019). Indoor Air Quality, What should I know about formaldehyde and indoor air quality? <https://www.epa.gov/indoor-air-quality-iaq/what-should-i-know-about-formaldehyde-and-indoor-air-quality>
- 13 NIEHS. (2016). Flame Retardants. National Institute of Environmental Health Sciences. https://www.niehs.nih.gov/health/materials/flame_retardants_508.pdf
- 14 ATSDR. (n.d.). Per- and Polyfluoroalkyl Substances (PFAS) and Your Health. <https://www.atsdr.cdc.gov/pfas/health-effects/index.html>
- 15 NIEHS. (2016). Flame Retardants. National Institute of Environmental Health Sciences. https://www.niehs.nih.gov/health/materials/flame_retardants_508.pdf
- 16 National Toxicology Program. (2020). NTP Technical Report on the Toxicology and Carcinogenesis Studies of Perfluorooctanoic Acid (CASRN 335-67-1) Administered in Feed to Sprague Dawley (Hsd:Sprague Dawley SD) Rats. NTP. https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr598_508.pdf
- 17 NIEHS. (2016). Flame Retardants. National Institute of Environmental Health Sciences. https://www.niehs.nih.gov/health/materials/flame_retardants_508.pdf
- 18 Eskenazi B, Chevrier J, Rauch SA, Kogut K, Harley KG, Johnson C, Trujillo C, Sjodin A, Bradman A. (2013). In utero and childhood polybrominated diphenyl ether (PBDE) exposures and neurodevelopment in the CHAMACOS study. *Environ Health Perspect* 121(2):257-262. <https://pubmed.ncbi.nlm.nih.gov/23154064/>
- 19 Lam J, Lanphear BP, Bellinger D, et al. (2017). Developmental PBDE Exposure and IQ/ADHD in Childhood: A Systematic Review and Meta-analysis. *Environ Health Perspect*. 125(8):086001. <https://doi.org/10.1289/EHP1632>
- 20 Grandjean P, Heilmann C, Weihe P, Nielsen F, Mogensen UB, Timmermann A, Budtz-Jørgensen E. (2017). Estimated exposures to perfluorinated compounds in infancy predict attenuated vaccine antibody concentrations at age 5-years. *J Immunotoxicol*. 14(1):188-195. <https://pubmed.ncbi.nlm.nih.gov/28805477/>
- 21 Kielsen K, Shamim Z, Ryder LP, et al. (2016). Antibody response to booster vaccination with tetanus and diphtheria in adults exposed to perfluorinated alkylates. *J Immunotoxicol*. 213(2):270-273. <https://pubmed.ncbi.nlm.nih.gov/26181512/>
- 22 Vested A, Ramlau-Hansen CH, Olsen SF, Bonde JP, Kristensen SL, Halldorsson TI, Becher G, Haug LS, Ernst EH, & Toft G. (2013). Associations of in utero exposure to perfluorinated alkyl acids with human semen quality and reproductive hormones in adult men. *Environmental Health Perspectives*, 121(4), 453-458. <https://doi.org/10.1289/ehp.1205118>
- 23 NIEHS. (2016). Flame Retardants. National Institute Environmental Health Sciences. https://www.niehs.nih.gov/health/materials/flame_retardants_508.pdf