

2016

Who's Minding the Store?

A report card on retailer actions to eliminate toxic chemicals



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Who's Minding the Store?

A report card on retailer actions to eliminate toxic chemicals

Executive Summary

Not one company received highest honors in the first-ever report card issued to the largest retailers on product safety and toxic chemicals. A handful of U.S. chain stores are making meaningful progress in ensuring that dangerous chemicals are not used in everyday products they carry, including **Walmart** and **Target**, who earned B grades, and **CVS Health**, who received a C. For example, Walmart reported a 95% reduction by weight of 16 “high priority” chemicals in certain products, and Target has adopted a list of more than 2,000 chemicals that it’s seeking to avoid in products sold on its shelves.

But with an average grade of D+, most retailers are barely making the grade. In fact, the laggards included **Amazon**, **Costco**, and **Albertsons**, who were all graded an F. Kroger barely passed with a D-. None of these retailers have even basic publicly available safer chemical policies.

A third group are middle-of-the-road performers, include **Best Buy** (C-), **The Home Depot** (D+), **Walgreens** (D), and **Lowe’s** (D).

Each of these retailers reports that it is just beginning to develop safer chemical policies or is taking initial steps to wean its suppliers off of toxic chemicals. For example, Best Buy and Walgreens have pledged to adopt safer chemical policies, and The Home Depot and Lowe’s eliminated toxic chemicals known as phthalates from vinyl flooring.



Major retailers are on the frontlines of consumer discontent with product safety. Research by independent scientists and government agencies have shown that many consumer items, from beauty products and cleaners to furniture, clothing and home electronics contribute to human exposure to chemicals shown to cause cancer, harm brain development, trigger asthma or reduce fertility. The report card scored U.S. retailers on progress made since the national coalition Safer Chemicals Healthy Families launched its Mind the Store Campaign three years ago.

“Who’s Minding the Store? – A Report Card on Retailer Actions to Eliminate Toxic Chemicals” – found some improvements in reducing the use of toxic chemicals in consumer products and in increasing public disclosure of chemical ingredients, but concluded that much greater effort is needed to meet rising consumer demand for products free from toxic chemicals. The report recommends that all major U.S retailers should:

- Adopt a safer chemicals policy to drive reductions and substitution of toxic chemicals in products;
- Publicly disclose all product ingredients to honor consumers “right to know”; and
- Promote and defend third-party safer product standards that mark clear progress.

The Mind the Store Campaign scored eleven of the largest U.S. retailers across 13 performance categories related to safer products and toxic chemicals based on publicly available and self-reported information. Each retailer was given the opportunity to review and comment on its draft score, and to provide additional information. Retailers were ranked and issued letter grades based on their final scores.

Introduction

A growing body of credible scientific evidence has linked exposure to endocrine disruptors and other toxic chemicals in everyday products to an epidemic of diseases on the rise, such as cancers, learning and developmental disabilities, reproductive harm, obesity and diabetes, and asthma.



The production, use, and disposal of toxic chemicals in common household products is costly not only to our health, but to our society.

A [new peer reviewed study](#) found that exposure to endocrine disrupting chemicals such as flame retardants, phthalates and bisphenol A (BPA) cost the United States more than \$340 billion in health costs a year. The financial, legal, regulatory and reputational risks associated with toxic chemicals continue to grow. A [recent United Nations report](#) found that that over a recent three-year period, CVS Health, Costco, Walgreens, Target and Walmart paid a total of \$138 million in fines for improper handling and disposal of products containing chemicals of concern.

As the costs to society and retailers bottom lines grow, big retailers have the power and moral responsibility to eliminate and safely substitute toxic chemicals to “mind the store.”

In 2013 Safer Chemicals, Healthy Families [launched the Mind the Store campaign](#) to challenge the nation’s biggest retailers to sell safer products that are free from toxic chemicals that threaten public health and the environment. We called on the top U.S. retailers to develop and implement robust chemicals policies that get tough on toxic chemicals and drive the [Hazardous 100+ toxic chemicals](#) out of commerce, transforming the marketplace.

Three years since the campaign was launched, “**Who’s Minding the Store? — A Report Card on Retailer Actions to Eliminate Toxic Chemicals**” set out to evaluate the progress that has been made, challenges that remain, and the ongoing need for transformational change in the marketplace to build a safer and healthier economy for all. We developed a robust and detailed set of criteria

across thirteen major categories to evaluate leading retailers' policies, programs and progress in advancing safer chemicals and green chemistry solutions in products. Retailers were graded on a scale of 0 to 130 points, and a corresponding letter grading scale was developed to match the points. To evaluate retailers' policies, we collected and reviewed publicly available information about their safer chemicals programs, and shared our draft findings with retailers, to provide them an opportunity to review our conclusions, disclose additional information and make new public commitments towards safer chemicals.

“Who’s Minding the Store? — A Report Card on Retailer Actions to Eliminate Toxic Chemicals” is the first major evaluation of the safer chemicals programs of the largest retailers in the United States.

Our investigation found that while some retailers are making significant progress, too many retailers remain serious laggards. The nation’s biggest retailers must continue to expand and accelerate their policies and programs as the scientific evidence demonstrating the urgent public health crisis posed by hazardous chemicals continues to grow.

Retailer Rankings

In this first-ever report card, major U.S. retailers earned grades ranging from B for good progress to F for failing to develop even basic safer chemical policies. Grades were assigned based on publicly available information concerning retailer policies and self-reported information concerning retailer practices. We also reached out to retailers, giving them an opportunity to review their draft score and provide additional information. The average grade was a D+, indicating a significant need for improvement by big retailers to meet rising consumer demand for safer products.

To review how each retailer graded in detail you can:

- See the chart on the next page to compare how the 11 retailers scored across the 13 categories of criteria.
- See pages 9-19 for a description of how each retailer scored.
- View the [detailed scoring chart](#) for the 11 retailers in Google Sheets.



Albertsons

Letter grade = **F**

Total points = 12.5 out of 130

Albertsons received the third lowest grade of any retailer evaluated, with a letter grade of F and only 12.5 points. Albertsons has no public safer chemicals policy in place. Albertsons (Safeway) sells some private label cleaning products that are Safer Choice certified. Additionally, the company has reported some progress in reducing the use of BPA in canned foods. Albertsons stated in a communication that: *“Albertsons Companies has been working with our Own Brand product suppliers to identify acceptable alternatives to packaging containing BPA. It is our desire as a company to use BPA-free packaging for as many products as possible. We expect to make the transition on an ongoing basis as new options become commercially available. In the meantime, using alternatives that are currently available, we have made notable packaging and product changes. In addition to those changes noted to the above children’s products, we have eliminated the use of register paper containing BPA.”* However, the company has not disclosed a timeframe or plan for completely eliminating and safely substituting BPA in canned foods.

Opportunities for improvement: Albertsons can make progress by developing a public written safer chemicals policy, setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, and completely eliminating and safely substituting BPA and perfluorinated chemicals (PFCs) in food packaging. Albertsons should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.



Amazon

Letter grade = **F**

Total points = 7.5 out of 130

Amazon received the lowest grade of any retailer evaluated, with a letter grade of F having accrued only 7.5 points. Meanwhile, Amazon's market share is rapidly growing and the company continues to roll out more private label products. According to projections, the company will soon be the biggest retailer of [apparel](#) and [electronics](#) in the United States. Unlike several of its competitors, the company has no public safer chemicals policy in place. The company has made some very limited progress: Amazon Elements baby wipes disclose which ingredients are in the products, the function of the ingredients, and which ingredients are restricted.

Opportunities for improvement: Amazon can begin by developing a public written safer chemicals policy and setting clear public timelines for reducing, eliminating, and safely substituting chemicals of high concern, beginning with its private label apparel and electronics. Amazon should promote greater transparency about chemicals in products by requiring suppliers to disclose full chemical ingredient information and posting them on Amazon.com. Amazon should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.



Best Buy

Letter grade = **C-**

Total points = 41 out of 130

Best Buy earned a C- grade, receiving 41 points. Best Buy is actively developing a chemical management program that will be publicly released in 2017. This policy will include both a Restricted Substance List (RSL) and a Manufacturing Restricted Substance List (MRSL), both of which the company will publicly disclose. Best Buy deserves credit as the only retailer we evaluated that is developing a MRSL, which requires avoidance of hazardous chemicals in the manufacture of the chemicals in a product even if not a final ingredient in the product. This can help drive harmful chemicals out of complex supply chains such as electronics.

Opportunities for improvement: Best Buy can continue to make progress by setting clear public benchmarks and timelines for its private label suppliers to reduce, eliminate, and safely substitute toxic chemicals such as flame retardant chemicals in televisions and other electronics. Best Buy should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.



Costco

Letter grade = **F**

Total points = 9.5 out of 130

Costco received the second lowest grade of any retailer evaluated, receiving only 9.5 points and a letter grade of F. The company has no public written safer chemicals policy in place, unlike many competitors. Costco was surprisingly the only major retailer that did not publicly report any progress in eliminating chemicals of high concern over the past three years. Costco sells some private label cleaning products that are Safer Choice certified.

Opportunities for improvement: Costco can make progress by developing a public written safer chemicals policy and setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, beginning with its private label products. Costco should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.



CVS Health

Letter grade = **C**

Total points = 53 out of 130

CVS Health attained a grade of C based on a score of 53 points, the third highest score of any retailer evaluated. CVS Health developed a [“Cosmetic Safety Policy”](#) and in 2016 disclosed it has developed a list of “Chemicals of Consumer Concern” (CCCs). The company [states in its most recent sustainability report](#): *“(We) actively identify and prioritize the replacement of CCCs with safer alternatives in certain CVS Brand categories, including beauty, baby and personal care, and food products. As new, conclusive research is published on how certain chemical ingredients are linked to health and environmental risks, and safer alternatives are made available, we apply our Cosmetic Safety Policy. This policy outlines our commitments to customer safety, scientific research, supplier collaboration and continuous improvement as well as the evaluation and replacement of CCCs in CVS Brand products. In 2015, we began the process of developing a sustainable products policy to further inform our strategy and commitments.”* CVS Health recently became the first major pharmacy chain in the country to become a signatory of the Chemical Footprint Project, and the only one of the eleven retailers graded to sign on to date. The company has also pledged to disclose its restricted substance list in 2017.

Opportunities for improvement: CVS can continue to improve its safer chemicals program by setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, developing guidance for suppliers on evaluating alternatives, and getting private label cleaning products certified to meet third-party standards such as EPA Safer Choice, Made Safe or Green Seal. CVS Health should pilot the Chemical Footprint Project with key private label suppliers.

View the [scoring chart](#) for details.



The Home Depot

Letter grade = **D+**

Total points = 35.5 out of 130

The Home Depot was issued a D+ grade, scoring 35.5 points. The Home Depot has no public safer chemicals policy. The Home Depot was the first major retailer to [develop a policy to eliminate all added ortho-phthalates in flooring in 2015](#), setting a major precedent for home improvement and flooring retailers across the nation. The Mind the Store campaign of Safer Chemicals, Healthy Families worked in partnership with The Home Depot for nearly a year to develop its policy. As the largest home improvement chain in the United States and globally, The Home Depot's accomplishment is significant. [According to one article](#), "*Total flooring sales accounted for over 7 percent of Home Depot's \$83.2 billion total revenues in 2014, or almost \$6 billion, a 4 percent increase from the year before.*" The Home Depot's actions led to a major ripple effect among other large home improvement and flooring retailers who joined the market shift away from phthalates in flooring.

Opportunities for improvement: The Home Depot should leverage this success by expanding its policy by phasing out phthalates in other vinyl products it sells, develop a written safer chemicals policy, and set public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern. The Home Depot should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers. The Home Depot should also pilot the [Health Product Declaration](#) with suppliers.

View the [scoring chart](#) for details.



Kroger

Letter grade = **D-**

Total points = 15.5 out of 130

Kroger received the fourth lowest grade of any retailer evaluated, with a letter grade of D- and 15.5 points. Kroger has no public safer chemicals policy. The company has taken steps to eliminate triclosan, quaternium-15, phthalates, parabens and chlorine in pulp of baby products. Additionally, Kroger eliminated triclosan from corporate branded body washes and antibacterial soaps by the end of 2014. The company in 2011 pledged to act on BPA in canned foods. As of May 2016, corporate brands have converted 370 canned goods to non-BPA liners. This includes all canned offerings under its Simple Truth Organic® brand. However, the company has not disclosed a timeframe or plan for completely eliminating and safely substituting BPA in canned foods.

Opportunities for improvement: Kroger can make progress by developing a public written safer chemicals policy, setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, and completely eliminating and safely substituting BPA and perfluorinated chemicals (PFCs) in food packaging. Kroger should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.



Lowe's

Letter grade = **D**

Total points = 29.5 out of 130

Lowe's was issued a D grade, scoring 29.5 points. Lowe's has no public safer chemicals policy. Lowe's adopted a policy to eliminate phthalates in its flooring by the end of 2015. Lowe's is the second largest home improvement retailer in the country, and [flooring](#) "represented \$3.2 billion in sales for Lowe's last year, or 6% of its \$56 billion total revenues." Lowe's actions helped lead to a major ripple effect among other large home improvement and flooring retailers who joined the market shift away from phthalates in flooring.

Opportunities for improvement: Lowe's should leverage this success by phasing out phthalates in all other vinyl products it sells, develop a written safer chemicals policy, and set public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern. Lowe's should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers. Lowe's should also pilot the [Health Product Declaration](#) with suppliers.

View the [scoring chart](#) for details.



Target

Letter grade = **B**

Total points = 76.5 out of 130

Target was awarded a B grade, receiving 76.5 points, the second highest score of any retailer evaluated. Target developed a “Sustainable Product Index” (SPI) in [2013](#), which was [updated and expanded in 2015](#) and again [even more recently in 2016](#). Target has flagged more than 2,000 chemicals of concern for reduction and elimination. The SPI has been applied to personal care, baby care and cleaning products, and in 2016 the company expanded it for the first time to also address cosmetics. In 2016, Target made other significant improvements to its policy: 1) Expanded the list of chemicals subject to its policy, particularly those restricted in cosmetics in the European Union and Canada; 2) Significantly improved its evaluation of suppliers’ transparency practices, including a new way for Target to evaluate fragrance ingredients against its restricted substance list; and 3) Added criteria pushing suppliers to disclose its “palette list” of fragrance ingredients, allergens in fragrance and nanomaterials. With these improvements, *Target has developed the most robust criteria for evaluating suppliers’ disclosure practices.*

Opportunities for improvement: Target can continue to improve its safer chemicals program by setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, reporting on its progress in working with suppliers to reduce chemicals of high concern, developing guidance for suppliers on evaluating alternatives, and expanding the policy to other chemically intensive products such as apparel, electronics, and furniture. Target should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.

Walgreens

Walgreens

Letter grade = **D**

Total points = 29.5 out of 130

Walgreens was issued a D grade, scoring 29.5 points. Walgreens announced in late 2014 that it was developing a “[Chemical Sustainability Program](#),” for release in the spring of 2015, but then backtracked, saying it would be forthcoming in the “coming months.” However, nearly two years later, this program is still not public. Walgreens has made some limited progress; it introduced Well Beginnings, a broad range of newborn, infant and toddler products, which are free of parabens, phthalates, quaternium 15 and similar formaldehyde donor preservatives.

Opportunities for improvement: The company can improve by publishing its “Chemical Sustainability Program” and setting clear public benchmarks and timelines for its suppliers to reduce and eliminate all Restricted Substance List chemicals that its sister retailer Boots has already acted on in the UK. The company should also certify private label cleaning products to a third party program such as EPA Safer Choice, Made Safe, or Green Seal. Walgreens should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.



Walmart

Letter grade = **B**

Total points = 78.5 out of 130

Wal-Mart Stores (Walmart and Sam's Club) earned a grade of B, scoring 78.5 out of 130 possible points, the highest score of any retailer evaluated. Walmart developed a "Sustainable Chemistry Policy" in 2013 and "Sustainable Chemistry Implementation Guide" in 2014, and for the first time reported significant progress in implementing its policy in the summer of 2016. Walmart has developed a list of 16 "High Priority" chemicals and more than 2,000 "Priority" chemicals of concern that it challenges suppliers to reduce and eliminate. The company states in its policy: "All suppliers are expected to reduce, restrict and eliminate use of priority chemicals using informed substitution principles." The policy applies to cleaning products, cosmetics and personal care products, infant products, and pet supplies. In October 2016, Walmart unveiled its "[Sustainable Packaging Playbook](#)," which also encourages suppliers to identify, restrict and remove its priority chemicals from packaging, and also avoid polyvinyl chloride (PVC or vinyl) plastic, in packaging.

Opportunities for improvement: Walmart can continue to improve its safer chemicals program by setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, continuing to annually report on progress in implementing its policy, expanding its list of High Priority chemicals to tackle a broader list of chemicals, and expanding the policy to other chemically intensive product categories such as apparel, electronics, and furniture. Walmart should become a signatory to the Chemical Footprint Project and pilot it with key private label suppliers.

View the [scoring chart](#) for details.

Key Findings

A careful analysis of retailer progress across thirteen scoring criteria revealed five major findings:

1. Three retailer leaders are making meaningful progress toward adopting policies for safer chemicals and products, setting the pace for the entire sector.
2. Too many retailers remain serious laggards that lack even basic public policies, while a few others are just beginning to make progress.
3. Retailers are driving toxic chemicals from the market, but more effort is needed to ensure that alternatives avoid “regrettable substitutes.”
4. Disclosure of chemical ingredients by retailers and suppliers is improving, but greater transparency is needed to satisfy consumers.
5. Third-party standards are playing a positive role in product safety, but not enough retailers are assessing their chemical footprint.

1.

Three retailer leaders are making meaningful progress toward adopting policies for safer chemicals and products, setting the pace for the entire sector.

Of the retailers we evaluated, Walmart, Target, and CVS Health have developed the most robust safer chemical management programs during the past three years and, therefore, have received the highest grades. Walmart earned a grade of B, scoring 78.5 out of 130 possible points, the highest score of any retailer we evaluated. Target was also awarded a B grade, receiving 76.5 points. CVS Health attained a grade of C based on a score of 53 points.

- **Walmart** developed a “Sustainable Chemistry Policy” in 2013 and “Sustainable Chemistry Implementation Guide” in 2014, and for the first time reported significant progress in implementing its policy in the summer of 2016. Walmart has developed a list of 16 “High Priority”

chemicals and more than 2,000 “Priority” chemicals of concern that it challenges suppliers to reduce and eliminate. The company states in its policy: “*All suppliers are expected to reduce, restrict and eliminate use of priority chemicals using informed substitution principles.*” The policy applies to cleaning products, cosmetics and personal care products, infant products, and pet supplies. In October 2016, Walmart unveiled its “[Sustainable Packaging Playbook](#),” which also encourages suppliers to identify, restrict and remove its priority chemicals from packaging, and also avoid polyvinyl chloride (PVC or vinyl) plastic, in packaging. In November 2016 Walmart [announced](#) important new 2025 sustainability goals which include a commitment to sell “safer and healthier products” but unfortunately it did not announce any new goals or commitments to reduce and eliminate toxic chemicals in products as part of this effort.

Opportunities for improvement: Walmart can continue to improve its safer chemicals program by setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, continuing to annually report on progress in implementing its policy, expanding its list of High Priority chemicals to tackle a broader list of chemicals, and expanding the policy to other chemically intensive product categories such as apparel, electronics, and furniture.

- **Target** developed a “Sustainable Product Index” (SPI) in [2013](#), which was [updated and expanded in 2015](#) and again [even more recently in 2016](#). Target has flagged more than 2,000 chemicals of concern for reduction and elimination. The SPI has been applied to personal care, baby care and cleaning products, and in 2016 the company expanded it for the first time to also address cosmetics. In 2016, Target made other significant improvements to its policy: 1) Expanded the list of chemicals subject to its policy, particularly those restricted in cosmetics in the European Union and Canada; 2) Significantly improved its evaluation of suppliers’ transparency practices, including a new way for Target to evaluate fragrance ingredients against its restricted substance list; and 3) Added criteria pushing suppliers to disclose their “palette list” of fragrance ingredients, allergens in fragrance and nanomaterials. *With these improvements, Target has developed the most robust criteria for evaluating suppliers’ disclosure practices.* Unfortunately, it removed reference to endocrine disruptors and reduced the number of points granted for third-party certified products.

Opportunities for improvement: Target can continue to improve its safer chemicals program by setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, reporting on its progress in working with suppliers to reduce chemicals of high

concern, developing guidance for suppliers on evaluating alternatives, and expanding the policy to other chemically intensive products such as apparel, electronics, and furniture.

- **CVS Health** developed a “[Cosmetic Safety Policy](#)” and in 2016 disclosed it has developed a list of “Chemicals of Consumer Concern” (CCCs). The company [states in its most recent sustainability report](#): “(We) actively identify and prioritize the replacement of CCCs with safer alternatives in certain CVS Brand categories, including beauty, baby and personal care, and food products. As new, conclusive research is published on how certain chemical ingredients are linked to health and environmental risks, and safer alternatives are made available, we apply our Cosmetic Safety Policy. This policy outlines our commitments to customer safety, scientific research, supplier collaboration and continuous improvement as well as the evaluation and replacement of CCCs in CVS Brand products. In 2015, we began the process of developing a sustainable products policy to further inform our strategy and commitments.”

Opportunities for improvement: CVS can continue to improve its safer chemicals program by setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, developing guidance for suppliers on evaluating alternatives, and getting private label cleaning products certified to meet third-party standards such as [EPA Safer Choice](#), [Made Safe](#), or [Green Seal](#).

2.

Too many retailers remain serious laggards that lack even basic public policies, while a few others are just beginning to make progress.

Out of the eleven retailers we evaluated, Amazon, Costco, and Albertsons all earned failing grades. Kroger also scored poorly with a grade of D-, barely avoiding an F with 15.5 points. None of these four retailers have public written safer chemicals policies.

- **Amazon** received the lowest grade of any retailer evaluated, accruing only 7.5 out of 130 possible points. Meanwhile, Amazon’s market share is rapidly growing and the company continues to roll out more private label products. According to projections, the company will soon be the biggest retailer of [apparel](#) and [electronics](#) in the United States. Unlike several of its competitors, the company has no public safer chemicals policy in place.

Opportunities for improvement: Amazon can begin by developing a public written safer chemicals policy and setting clear public timelines for reducing, eliminating, and safely substituting chemicals of high concern, beginning with its private label apparel and electronics.

Amazon should promote greater transparency about chemicals in products by requiring suppliers to disclose full chemical ingredient information and posting them on Amazon.com.

- **Costco** received the second lowest grade of any retailer, receiving only 9.5 points. The company has no public written safer chemicals policy in place, unlike many competitors. Costco was surprisingly the only major retailer that did not publicly report any progress in eliminating chemicals of high concern over the past three years.

Opportunities for improvement: Costco can make progress by developing a public written safer chemicals policy and setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, beginning with its private label products.

- **Albertsons** received the third lowest grade of any retailer, with only 12.5 points.

Opportunities for improvement: Albertsons can make progress by developing a public written safer chemicals policy, setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, and completely eliminating and safely substituting BPA and perfluorinated chemicals (PFC's) in food packaging.

- **Kroger** received the fourth lowest grade of any retailer we evaluated, receiving only 15.5 points.

Opportunities for improvement: Kroger can make progress by developing a public written safer chemicals policy, setting public quantifiable goals with clear timelines for reducing and eliminating chemicals of high concern, and completely eliminating and safely substituting BPA and perfluorinated chemicals (PFC's) in food packaging.

Progress is being made by some retailers to develop chemical policies:

Some retailers are beginning to make progress in developing safer chemical management programs. To their credit, both Best Buy and Walgreens have pledged to develop written safer chemicals policies. Best Buy earned a C- grade, receiving 41 points. Walgreens was issued a D grade, scoring 29.5 points.

- **Best Buy** is actively developing a chemical management program that will be publicly released in 2017. This policy will include both a Restricted Substance List (RSL) and a Manufacturing Restricted Substance List (MRSL), both of which the company will publicly disclose. Best Buy deserves credit as the only retailer we are aware of that is developing a MRSL, which requires avoidance of hazardous chemicals in the manufacture of the chemicals in a product even if not

a final ingredient in the product. This can help drive harmful chemicals out of complex supply chains such as electronics.

Opportunities for improvement: Best Buy can continue to make progress by setting clear public benchmarks and timelines for its private label suppliers to reduce, eliminate, and safely substitute toxic chemicals such as flame retardant chemicals in televisions and other electronics.

- **Walgreens** announced in late 2014 that it was developing a “[Chemical Sustainability Program](#),” for release in the spring of 2015, but then backtracked, saying it would be forthcoming in the “coming months.” However, nearly two years later, this program is still not public.

Opportunities for improvement: The company can improve by publishing its “Chemical Sustainability Program” and setting clear public benchmarks and timelines for its suppliers to reduce and eliminate all Restricted Substance List chemicals that its sister retailer Boots has already acted on in the UK. The company should also certify private label cleaning products to a third party program such as [EPA Safer Choice](#), [Made Safe](#), or [Green Seal](#).

3.

Retailers are driving toxic chemicals from the market, but more effort is needed to ensure that alternatives avoid “regrettable substitutes.”

During the past three years, retailers have made notable progress in reducing and eliminating toxic chemicals and materials such as phthalates, halogenated flame retardants, triclosan, bisphenol A (BPA), formaldehyde, and polyvinyl chloride (PVC) plastic. To their credit, Albertsons, Amazon, Best Buy, CVS Health, The Home Depot, Kroger, Lowe’s, Target, Walgreens, and Walmart all reported reductions in the use of certain toxic chemicals in the products they sell. However, more action is urgently needed to further drive harmful chemicals out of the marketplace in favor of safer alternatives.

- **Walmart** [announced](#) in the summer of 2016 that its suppliers achieved a 95% reduction by weight of “High Priority” chemicals and a 45% reduction of “Priority” chemicals by weight. This amounts to a significant reduction of approximately 11,000 tons or 23 million pounds of Walmart “High Priority” chemicals. However, more progress is still needed: the number of products containing High Priority chemicals decreased by only 3 percent, and the percent of suppliers

using High Priority chemicals actually increased. Meanwhile, the percent of products containing any Priority chemical grew by one percent.

- **The Home Depot** was the first major retailer to develop a [policy to eliminate all added ortho-phthalates in flooring in 2015](#), setting a major precedent for home improvement and flooring retailers across the nation. The Mind the Store campaign of Safer Chemicals, Healthy Families worked in partnership with The Home Depot for nearly a year to develop its policy. As the largest home improvement chain in the United States and globally, The Home Depot's accomplishment is significant. According to [one article](#), "*Total flooring sales accounted for over 7 percent of Home Depot's \$83.2 billion total revenues in 2014, or almost \$6 billion, a 4 percent increase from the year before.*" The Home Depot was issued a D+ grade, scoring 35.5 points.

Opportunities for improvement: The Home Depot should leverage this success by expanding its policy by phasing out phthalates in other vinyl products it sells, and develop a written safer chemicals policy.

- **Lowe's** also adopted a policy to eliminate phthalates in its flooring by the end of 2015. Also significant, Lowe's is the second largest home improvement retailer in the country, and [flooring](#) "*represented \$3.2 billion in sales for Lowe's last year, or 6% of its \$56 billion total revenues.*" Lowe's was issued a D grade, scoring 29.5 points.

Opportunities for improvement: Lowe's should leverage this success by phasing out phthalates in all other vinyl products it sells, and develop a written safer chemicals policy.

The Home Depot's and Lowe's actions led to a major ripple effect among other large home improvement and flooring retailers such as [Lumber Liquidators and Menards](#) who joined the market shift away from phthalates in flooring.

Most retailers have not developed adequate guidance for evaluating the hazards of replacement chemicals or materials. Businesses must ensure that suppliers are actively evaluating the hazards of alternatives when reducing or eliminating chemicals of high concern, because otherwise the substitute may be as bad as or worse than the original chemical. For example, while Kroger and Albertsons have reported some progress in reducing the use of BPA in canned foods, a [recent report](#) co-written by the Mind the Store campaign showed that some of its suppliers are using regrettable substitutes such as styrene and PVC based resins in can linings.

- **Walmart** deserves credit as the only retailer to develop clear guidance for suppliers in assessing the hazards of replacement chemicals. Walmart provides public guidance for suppliers in its “Sustainable Chemistry Implementation Guide.” Walmart states:

“Informed substitution is the considered transition from a chemical of particular concern to safer chemicals or non-chemical alternatives... Using informed substitution principles will mitigate hazard risks associated with product formulation and achieve compliance with Walmart’s Policy on Sustainable Chemistry in Consumables...In the aim of advancing safer formulated products and promoting informed substitution, Walmart recommends the major tenets of Alternatives Assessment, a process for identifying, comparing and selecting safer alternatives to priority chemicals (including those in materials, processes or technologies) on the basis of their hazards, performance, and economic viability...”

In its Implementation Guide, Walmart cites many valuable resources, such as [GreenScreen](#), [Pharos Chemical and Material Library](#), [BizNGO’s Chemical Alternatives Assessment Protocol](#), and the [Lowell Center for Sustainable Production’s Alternatives Assessment Protocol](#). However, how the company tracks or evaluates suppliers’ use of these tools and practices remains unclear.

4.

Disclosure of chemical ingredients by retailers and suppliers is improving, but greater transparency is needed to satisfy consumers.

Business-to-business disclosure: Major retailers are increasingly encouraging or requiring suppliers to disclose the identity of chemicals to them through tools such as UL’s [WERCS](#) and [PurView](#) platforms. However, no retailers are going as far as to require full ingredient disclosure. Walmart *recommends* that disclosure should include “*Full disclosure of all ingredients including those typically protected under trade secrets (e.g. fragrances)*” as well as “*Known residuals, contaminants, and by-products,*” but does not go as far as to require full ingredient disclosure for all products. Target encourages suppliers to disclose their full formulations and fragrance palettes, and work with third parties such as UL, DFE (now known as Safer Choice), and Cradle 2 Cradle to evaluate whether fragrances and full ingredient formulations contain hazardous substances identified by Target while still protecting confidential business information (CBI). This is important as [Target states](#): “*Consumers can have confidence that a brand’s products will not contain Target SPI High Priority or Concern chemicals if its palette passes the screen.*”

Consumer disclosure: Retailers are also pushing suppliers to disclose chemical ingredients to consumers. Target incentivizes suppliers to disclose all ingredients to consumers, including the

specific constituents of fragrances or other proprietary components, grading suppliers on their public disclosure practices. Target is the [first major retailer](#) to push suppliers to publicly disclose 1) A “palette list” of fragrance ingredients, which according to Target allows: “*consumers to determine if undesirable chemicals might be present in a product*”; 2) Allergens of concern identified by the EU, which may be present in fragrance; and 3) Nanomaterials, which are substances of emerging concern. In total, Target has identified six tiers of ingredient disclosure practices suppliers are scored on.

Retailers are gradually becoming more transparent about the identity of their priority chemicals of concern, but more transparency is essential to meet the growing consumer demand for “radical transparency.” In summer of 2016 [Walmart disclosed for the first time](#) the identity of its 16 “High Priority” chemicals: butylparaben, propyl paraben, dibutyl phthalate, diethyl phthalate, formaldehyde, nonylphenol ethoxylates (a class of nine substances), toluene, and triclosan. Both Walmart and Target have also published their lists of priority chemicals, which we have compiled and made publicly available with the Healthy Building Network for the first time [here](#). Both Best Buy and CVS Health have pledged to disclose the identity of their restricted substance lists in 2017. Other retailers including Albertsons, Amazon, Costco, The Home Depot, Kroger, Lowe’s, and Walgreens are clearly lagging behind and have either not developed or not publicly disclosed their RSL’s.

5.

Third-party standards are playing a positive role in product safety, but not enough retailers are assessing their chemical footprint.

Retailers are increasingly making safer products more readily available on store shelves and online. However, more progress is urgently needed in order to meet growing consumer demand for safe and healthy products. Best Buy, The Home Depot, and Target each have programs in place to market safer products free of harmful chemicals to their customers.

Retailers are also encouraging suppliers to get their products certified through credible third-party safer chemicals standards such as EPA Safer Choice and Cradle 2 Cradle. Retailers should also promote other reputable third-party safer chemicals programs such as Green Seal and Made Safe.

- **Walmart** has set a goal of getting all private label cleaning products certified through the EPA Safer Choice program, though the company has yet to report progress on meeting this goal.
- **Target** evaluates whether suppliers meet the third party standards Safer Choice and Cradle 2 Cradle, and rewards those that do. Target also created the “[Made to Matter](#)” program to promote and feature products free of toxic chemicals online and on store shelves. Target states that these

products meet its “clean label” criteria, which is based on scores generated through its Sustainable Product Index. These products are selling very well in its stores, reaching more than a billion dollars in sales in one year alone and [achieving](#) “*approximately a 30 percent sales growth at Target, which is 1.5 times faster than anywhere else*” at Target in 2015. Target has also certified some of its private label Up & Up cleaning products to Safer Choice and children’s pajamas to the Global Organic Textiles Standard (GOTS).

- **Best Buy** features EPEAT-certified products on its website, and reports that, “*Best Buy customers purchased more than 3 million EPEAT-registered products, which collectively helped prevent the generation of hazardous materials equivalent to the weight of 35,000 refrigerators...Savings result from avoiding the use of toxic materials such as lead in printed circuit boards and mercury in light sources.*” EPEAT is a third-party certification program for electronics, which includes criteria around avoiding chemicals of concern.
- **The Home Depot** features safer products, such as EPA Safer Choice-certified cleaners, on its [Eco Options website](#).

[The Chemical Footprint Project](#) provides a new tool that retailers can utilize to evaluate and benchmark their progress systematically and the progress of suppliers in reducing reliance on toxic chemicals and bringing safer products to market. CVS Health recently became the first major pharmacy chain in the country to become a signatory of the Chemical Footprint Project, and the only one of the eleven retailers graded to sign on to date. Other retailers should follow suit to help spur the proliferation of this important tool in the marketplace.

In its most recent sustainability report, Walmart embraced the concept of evaluating its chemical footprint and [states](#) the company has “*an initial framework for evaluating our chemical footprint using UL’s WERCSmart™ platform for in-scope formulated consumable products.*”

Conclusion



Large retailers are on the frontlines of consumer discontent with product safety and hazardous chemicals in household products. Some of America's largest retailers are taking positive action to better ensure the safety of the products they sell by restricting the use of toxic chemicals by their suppliers. However, the largest U.S. retailers demonstrate highly uneven progress across their ranks.

Retailer reputation and customer loyalty remain at serious risk. The legal, financial, and regulatory risks associated with toxic chemicals continue to grow. Retailers cannot afford to wait for slow-paced government regulation to catch up with the backlog of thousands of chemicals that remain untested for safety or are already known to be hazardous to public health and the environment. Relying on self-policing by the chemical industry and product manufacturers will not satisfy the concerns of consumers, who increasingly are voting with their dollars, demanding greater transparency and safer products.

Retailers must lead in promoting safer chemicals, safer products and healthy families.

Recommendations

Based on our findings, the Mind the Store campaign recommends:

- 1. Policy:** Every major U.S. retailer should have a written safer chemical policy, with senior management staff, executive and board level engagement, that measures and publicly reports on continuous improvement toward reducing, eliminating and safely substituting toxic chemicals in products;
- 2. Transparency:** Every major U.S. retailer should embrace “radical transparency” to meet rising consumer demand for full public disclosure of product chemical ingredients, developing and disclosing written safer chemicals policies, and annually reporting on goals and metrics in implementing policies aimed at eliminating harmful chemicals and requiring informed substitution; and
- 3. Safer chemicals standards:** Every major U.S. retailer should nurture, promote, require, and vigorously defend from attack reputable third-party safer chemicals standards aimed at promoting safer products such as Safer Choice, Made Safe, Green Seal, the LEED Material Ingredient credit, the Chemical Footprint Project, Cradle 2 Cradle, and others.

Methodology Summary

“Who’s Minding the Store? — A Report Card on Retailer Actions to Eliminate Toxic Chemicals”

set out to evaluate the progress that has been made, challenges that remain, and the ongoing need for transformational change in the marketplace to promote safer chemicals in products since the [Mind the Store campaign was launched in 2013](#).



“Who’s Minding the

Store?” evaluated the publicly available safer chemicals policies of eleven of the nation’s largest retailers: Albertsons, Amazon, Best Buy, Costco, CVS Health, The Home Depot, Kroger, Lowe’s, Target, Walgreens, and Walmart Stores (Walmart and Sam’s Club). These retailers were selected for evaluation as they were either the top ten U.S. retailers (by sales) the Mind the Store campaign first challenged in 2013 or are now among the [top ten U.S. retailers](#) by sales.

We developed a [scoring rubric with 13 categories of criteria](#) (list below) to evaluate retailers’ policies and practices. We aligned the criteria with other corporate safer chemicals policies and best practices identified in the [BizNGO Principles for Safer Chemicals](#), [BizNGO Guide to Safer Chemicals](#) and the [Chemical Footprint Project](#). Each of the categories contain a maximum number of possible points, ranging from 0 to 20 points, depending on the weight we assigned each of the categories based on our subjective determination of which were most important to the goal of eliminating exposure to harmful chemicals. The maximum number of points across the 13 categories translate to a maximum possible score of 130 points. We created a tiered grading system for each category, awarding points for steps retailers can take on the journey to safer retailer chemical policies and programs beyond basic regulatory compliance. We developed a curved letter grading system to correspond with the number of points, ranging from F to A+ (see Description of Actions, pages 33-36).

After developing and refining the criteria, we reviewed retailers' self-reported information, including corporate social responsibility/sustainability reports, websites, news releases and blog posts in the summer and early fall of 2016. We also reviewed official correspondence between the Mind the Store campaign and the retailers. After grading the retailers, we sent each of the eleven retailers their draft score, providing them an opportunity to review our findings, disclose additional practices and make new commitments to bring safer chemicals to market. We followed up with each retailer multiple times to ensure they received their draft grade and understood the deadline and process. We set up meetings with a number of retailers to review and discuss our findings. After receiving input, we then adjusted and finalized each score based on any new information that was disclosed. We also slightly refined and updated the scoring rubric, to reflect some of the retailer initiatives and new commitments.

Below is a list of the 13 categories describing the “best in class” actions needed to achieve the maximum number of points for each category. The [full scoring rubric spreadsheet](#) and the [detailed scoring spreadsheet](#) can be downloaded at the links on this page.

Key resources for “Who’s Minding the Store?”

- [Detailed Grades](#): view in Google Sheets
- [Scoring Rubric](#): download in Microsoft Excel
- Grading Table: how we calculated grades, page 37
- Glossary: terms referenced in “Who’s Minding the Store?”, pages 38-42
- [List](#): top U.S. retailers by sales
- [Background](#): about the Mind the Store campaign
- [Hazardous 100+](#): list of chemicals

Description of Actions Needed to Earn Maximum Points



Oversight: Assigned corporate management responsibility

15 points

A corporate manager has explicit responsibility for product safety related to chemical hazards in products (going beyond basic regulatory compliance) as part of sustainability, environmental, health & safety (EH&S), procurement, and supply chain management; company provides financial and other incentives to employees for successful implementation of their retailer safer chemicals policy; AND has Board or Senior Management engagement in the implementation of safer chemicals policy.



Policy: Adopted a retailer safer chemicals policy

20 points

Retailer has a written safer chemicals policy that aims to avoid all chemicals of high concern (CHCs) in products and packaging they offer for sale to their customers; includes a Beyond Restricted Substance list for chemicals of high concern for at least one major product category; has set public quantifiable goals for reducing and eliminating CHCs in the products and packaging it sells; and has a manufacturing restricted substance list (MRSL) for at least one product category. (See glossary for terms).



Disclosure: Requires suppliers to report use of chemicals in products to retailer

10 points

Full chemical ingredient information collected for all private label and brand name formulated products AND generic material content for articles (see definition of full chemical ingredient information in glossary).



Action: Reduced or eliminated chemicals of high concern within the last three years

10 points

The company quantifies reductions (by weight) in the use of several chemicals of high concern in multiple product categories.



Safer Alternatives: Evaluates safer alternatives, avoids regrettable substitutes

10 points

The company provides strong assurance that detailed alternatives evaluation guidelines are applied, and either commissions or requires suppliers to conduct a credible hazard assessment for alternatives to chemicals of high concern.



Transparency: Demonstrates a commitment to transparency and public disclosure

15 points

The company demonstrates transparency by (1) making publicly available its safer chemicals policy and Beyond Restricted Substance List (RSL), and by annually reporting its results; (Metrics include quantifying reductions of CHCs by weight, number or percent of products containing CHCs, and/or number or percent of suppliers selling products containing CHCs); and (2) by requiring all suppliers of formulated products and articles to publicly disclose all ingredients online and on product packaging, including fragrance ingredients, generic ingredients, contaminants, impurities, byproducts, allergens, and nanomaterials.



Chemical Footprint: Evaluates its chemical footprint

10 points

The company completes the Chemical Footprint Project (CFP) survey.



Third-Party Standards: Promotes credible third party standards for safer products

10 points

The company requires credible third party safer chemicals certification (see glossary for examples) in multiple categories of retailer private label products, which go beyond regulatory compliance.

Extra Credit



Dialogue: Engaged in safer chemicals dialogue with the Mind the Store campaign

5 points

The company engages in extensive dialogue, and is open and responsive to regular inquiries and discussions.



Joint Announcement: Public commitment demonstrated through joint announcement

5 points

The company participated in a joint public announcement with the Mind the Store campaign.



Continuous Improvement: Show continuous improvement by steadily expanding safer chemicals policy

10 points

The company expanded the number of chemicals on its Beyond Restricted Substance List and expanded the number of product categories covered by its safer chemicals policy in the past year.



Safer Products: Program to promote safer products in stores and/or on website

5 points

Developed program to feature and market safer products on store shelves and/or website



Collaboration: Actively participates in collaborative process to promote safer chemicals

5 points

The company actively participates in a collaborative process to promote safer chemicals. Examples of such initiatives include the Beauty and Personal Care Products Sustainability Project (BPC), BizNGO Workgroup for Safer chemicals and Sustainable Materials (BizNGO), Green Chemistry & Commerce Council's (GC3) Retailer Leadership Council (RLC) or GC3 Preservatives Project, and the Zero Discharge of Hazardous chemicals (ZDHC) Programme.

How we calculated grades

Grading Rubric		
Number of Points		Letter Grade:
Greater than or Equal to:	But Less than:	
105	130	A+
95	105	A
87	95	A-
79	87	B+
71	79	B
63	71	B-
55	63	C+
47	55	C
39	47	C-
31	39	D+
23	31	D
15	23	D-
0	15	F

Appendix: Glossary of Terms

We used these definitions for terms identified in the scoring criteria and findings of “**Who’s Minding the Store?**” Most of, but not all, of these definitions were developed by the Chemical Footprint Project (CFP), which we are utilizing to promote greater alignment with the Chemical Footprint Project. We thank the CFP team for their work in developing many of these definitions.

Alternatives Assessment (AA): a process for identifying, comparing and selecting safer alternatives to chemicals of concern (including those in materials, processes or technologies) on the basis of their hazards, performance, and economic viability. A primary goal of Alternatives Assessment is to reduce risk to humans and the environment by identifying safer choices.

Article: An object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition.

Beyond Restricted Substance List (BRSL): hazardous chemicals identified by a company for management, reduction, elimination, or avoidance beyond legal requirements; that is, beyond legally restricted and reportable substances.

The Chemical Footprint Project (CFP): a new initiative for measuring corporate progress to safer chemicals. It provides a metric for benchmarking companies as they select safer alternatives and reduce their use of chemicals of high concern.

The Chemical Footprint Project measures overall corporate chemicals management performance through a 20 question survey, scored to 100 points, that evaluates:

- Management Strategy (20 points)
- Chemical Inventory (30 points)
- Footprint Measurement (30 points)
- Public Disclosure and Verification (20 points)

Chemical of High Concern (CHC): include substances that have the following properties: 1) persistent, bioaccumulative and toxic (PBT); 2) very persistent and very bioaccumulative (vPvB); 3) very persistent and toxic (vPT); 4) very bioaccumulative and toxic (vBT); 5) carcinogenic; 6) mutagenic; 7) reproductive or developmental toxicant; 8) endocrine disruptor; or 9) neuro-toxicant. “Toxic” (T) includes both human toxicity and ecotoxicity.

Chemical Footprint Project Signatories: Signatories of the Chemical Footprint Project agree to:

- Encourage companies in your sphere of influence to participate in the Chemical Footprint Project.
- Be listed on the Chemical Footprint Project website.
- Provide feedback on how to improve implementation of the Chemical Footprint Project

Chemicals in Products: chemicals that are intended or anticipated to be part of the finished product. Examples include dyes, silicone finishes, screen printing, inks, labels, flame retardants, a durable water repellent chemical formulation, or a chemical plasticizer added to a plastic product or component.

Chemicals Policy: a statement of how a company manages chemicals in its materials, supply chains, products, and operations beyond what is required by regulation.

Collaborative Processes to Promote Safer Chemicals: Examples of such initiatives include the Beauty and Personal Care Products Sustainability Project (BPC); the BizNGO Workgroup for Safer Chemicals and Sustainable Materials (BizNGO); Green Chemistry & Commerce Council’s (GC3) Retailer Leadership Council (RLC) or GC3 Preservatives Project; and the Zero Discharge of Hazardous Chemicals (ZDC) Programme.

Credible Third-Party Safer Chemicals Standards: include Cradle 2 Cradle, EPEAT Gold, EWG Verified, GreenScreen, Green Seal, Made Safe, and Safer Choice (formerly known as Design for the Environment).

Disclosure: synonymous with “public disclosure,” meaning that information is available to the general public through means such as print media, Internet/web sites, in annual progress and sustainability reports, at investor and stakeholder meetings, or on packaging.

Formulated Product: a preparation or mixture of chemical substances that can be gaseous, liquid, or solid (e.g., paints, liquid cleaning products, adhesives, coatings, cosmetics, detergents, dyes, inks, lubricants). Can be an intermediate product sold to another formulator, fabricator, or distributor or final product sold to a consumer or retailer.

Full Chemical Ingredient Information:

For articles: a company knows:

- 95% of the intentionally added substances by mass; and
- any impurities that are both a CHC and present at 1000 ppm or higher in a homogeneous material.

For formulated products: a company knows:

- 100% of the intentionally added substances by mass; and
- any impurities that are both a CHC and present at 100 parts per million (ppm) or higher in the formulation.

Generic Material Content is defined as the general name of a material, such as steel, nylon fabric, adhesive, or type of plastic (e.g., polyethylene terephthalate (PET)). CAS# is not required.

Green chemistry: the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. See The 12 principles of Green Chemistry <http://www.epa.gov/sciencematters/june2011/principles.htm>.

GreenScreen® for Safer Chemicals: a method for comparative Chemical Hazard Assessment (CHA) that can be used for identifying chemicals of high concern and safer alternatives.

GreenScreen® considers 18 human and environmental health endpoints and can be used to evaluate the hazard of a single chemical or mixtures and polymeric materials. GreenScreen® uses a set of four benchmarks to screen out chemicals that are associated with adverse health and environmental impacts. Chemicals that do not pass through Benchmark 1 are deemed Chemicals of High Concern and should be avoided; chemicals at Benchmark 2 are categorized as usable, but efforts should be taken to find safer alternatives; Benchmark 3 chemicals are those with an improved environmental health and safety profile but could still be improved; and chemicals that pass through all four benchmarks are considered safer chemicals and are therefore preferred.

GreenScreen® List Translator: an abbreviated version of the full GreenScreen® method that can be automated. It is based on the hazard lists that inform the GreenScreen® method. The GreenScreen® List Translator maps authoritative and screening hazard lists, including GHS country classifications, to GreenScreen® hazard classifications. The GreenScreen® List Translator can be accessed through Healthy Building Network's [Pharos Chemical and Material Library](#), a fee-for-service database.

Hazard (chemical): inherent property of a substance having the potential to cause adverse effects when an organism, system, or population is exposed, based on its chemical or physical characteristics.

Hazard Assessment: the process of determining under what exposure conditions (e.g., substance amount, frequency and route of exposure) a substance can cause adverse effects in a living system. Toxicology studies are used to identify the potential hazards of a substance by a specific exposure route (e.g., oral, dermal, inhalation) and the dose (amount) of substance required to cause an adverse effect.

Hazardous 100+ List of Chemicals of High Concern (Hazardous 100+): The Hazardous 100+ List of Chemicals of High Concern represents a small subset of all inherently hazardous chemicals of concern to which humans and the environment may be exposed in certain consumer products. Scientists have established links between exposures to many of these chemicals and chronic diseases and health conditions, including cancer, infertility, learning and developmental disabilities, behavioral problems, obesity, diabetes, and asthma. [The list is available online here.](#)

Manufacturing Restricted Substance List (MRSL): The MRSL differs from a RSL or BRSL because it restricts hazardous substances potentially used and discharged into the environment during manufacturing, not just those substances that could be present in finished products. The MRSL takes into consideration both process and functional chemicals used to make products, as well as chemicals used to clean equipment and facilities. It addresses any chemical used within the four walls of a manufacturing facility.

Persistent, bioaccumulative and toxic substance (PBT): a chemical that is toxic, persists in the environment and bioaccumulates in food chains and, thus, poses risks to human health and ecosystems

Safer Alternative: a chemical that due to its inherent chemical and physical properties exhibits a lower propensity to persist in the environment, accumulate in organisms, and induce adverse effects in humans or animals than chemicals in current use. In addition, the alternative must deliver the needed functional performance. A safer alternative may eliminate the need for the chemical through material change, product re-design, or product replacement; or by altering the functional demands for the product through changes in consumer demand, workplace organization, or product use.

Third-party: an independent person/entity involved in a project, including chemical assessments, that is not biased to the results of the work nor has any vested interest in the outcome of the work.



SAFERCHEMICALS.ORG

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