

CHEMICAL FOOTPRINT PROJECT

TAKING THE JOURNEY TO
A SMALLER CHEMICAL FOOTPRINT
2019 SURVEY RESULTS, FOURTH ANNUAL REPORT



IN THIS REPORT YOU WILL FIND:

- 2. KEY FINDINGS FROM FOUR YEARS OF THE CFP SURVEY
- 6. CHEMICALS OF HIGH CONCERN (COHCS) HARM PEOPLE & PLANET
- 8. THE LIST OF OUR CFP SIGNATORIES
- 10. CFP SURVEY ALIGNS WITH SASB MATERIALITY METRICS

CFP SIGNATORY PROFILES

- 9. INVESTMENT: MERCY INVESTMENTS SERVICES, INC.

CFP RESPONDER PROFILERS

- 15. SEVENTH GENERATION
- 17. RADIO FLYER

HIGHLIGHTS FROM THE 2019 SURVEY

- 13. OVERALL RESULTS
- 14. MANAGEMENT STRATEGY
- 16. CHEMICAL INVENTORY
- 18. FOOTPRINT MEASUREMENT
- 19. DISCLOSURE & VERIFICATION
- 20. COMPANY SIZE & CHEMICALS MANAGEMENT
- 21. JOIN US ON THE CHEMICAL FOOTPRINT JOURNEY

WHAT IS A CHEMICAL FOOTPRINT?

Chemical footprint is similar to a carbon footprint but instead of being a measure of carbon dioxide emissions it measures the use of chemicals of high concern (CoHCs) in products, packaging, manufacturing, facilities, and supply chains.

WHAT CONSTITUTES A CHEMICAL OF HIGH CONCERN (COHC)?

A carcinogen, mutagen, or developmental/reproductive toxicant; persistent, bioaccumulative and toxic substance (PBT); or any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that give rise to an equivalent level of concern — such as endocrine disruption — or a chemical whose breakdown products result in a CoHC that meets any of the above criteria.

WELCOME

Investors, health care organizations, retailers, and NGOs are calling upon brands and manufacturers to move beyond compliance and ensure their products and supply chains eliminate chemicals of high concern (CoHCs) to people and planet, and replace them with safer alternatives.

Yet the chemicals management programs of brands and manufacturers typically address only regulatory compliance. Moving beyond compliance to anticipate future market demands as well as regulations, and avoid the hidden liabilities of toxic chemicals in products and supply chains, requires developing and implementing a comprehensive chemicals management program. **The Chemical Footprint Project (CFP) Survey, through its questions and response options specifies and tracks progress to key milestones on the chemicals management journey, including steps taken to reduce an organization's chemical footprint.**

The CFP Survey maps the management strategies, chemical inventory procedures, footprint metrics, and disclosure practices essential to measuring and reducing a company's chemical footprint. A chemical footprint¹ is similar to a carbon footprint, but instead of measuring carbon dioxide emissions it measures the use of toxic chemicals in products and supply chains. **The CFP Survey supports companies in meeting the UN Sustainable Development Goals (SDG) by clarifying and plotting where companies are on the journey to reducing their chemical footprint and achieving good health and well-being (SDG #3) and responsible production and consumption (SDG #12).**

CFP SIGNATORIES engage companies in reducing chemical risks & growing market opportunities. They include: **INVESTORS** with \$2.7 trillion in assets under management and **PURCHASERS** with over \$800 billion in buying power.

JOIN THE CHEMICAL FOOTPRINT PROJECT AND MOVE BEYOND COMPLIANCE

ENGAGE

investors in market opportunities & reduced risks

MEASURE

& reduce your chemical footprint

MEET

customer demand for transparency & safer products

SHARE

your journey to safer chemicals & clean production



WHAT'S A CFP RESPONDER?

Responders are brands, retailers, & manufacturers that responded to the 2019 Survey, & include: *** Apparel & Textiles:** Levi Strauss & Co.; Standard Textile. **Building Products & Furnishings:** Herman Miller, Inc.; Milliken & Company; Naturepedic; nora systems, Inc.; Steelcase. **Household & Personal Products:** Beautycounter; The Clorox Company; Diversey, Inc.; Ecolab Inc.; GOJO Industries; Johnson & Johnson (also sells medical equipment); Kimberly-Clark Corporation; Meliora Cleaning Products; Reckitt Benckiser Group plc (RB); Seventh Generation. **Medical Equipment & Supplies:** Becton Dickinson and Co. (BD); Case Medical, Inc.; Philips; Steris PLC. **Technology:** HP Inc.; Xerox Corporation. **Retail:** Dollar Tree; Target Corporation; Walmart Inc. **Toys:** Hasbro, Inc.; Radio Flyer.

*Three additional companies responded to the Survey, but chose to remain anonymous.

KEY FINDINGS FROM THE 4TH ANNUAL CFP SURVEY

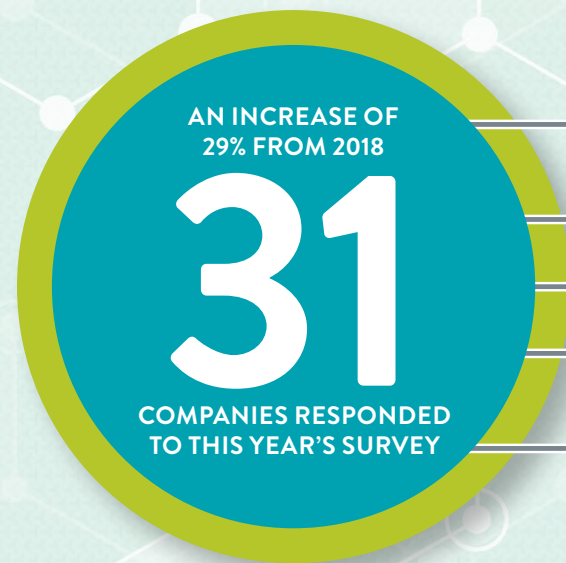
KEY FINDING RISING DEMAND FOR THE CFP SURVEY

Participating in the CFP Survey benefits companies through greater transparency and communication across their value chains, and reduced business risks from the internal knowledge gained from good chemicals management. Challenges to participating in the CFP Survey have included lack of awareness to the benefits, limited internal resources, and the absence of strong demand drivers. However, investor, health care, NGO, and retailer Signatories to CFP understand the value of the Survey and are catalyzing participation. **The 2019 CFP Survey witnessed an increase of responders by 29%, with 31 companies from seven business sectors responding to the Survey**, including the: apparel and textiles, building products and furnishings, household and personal

products, medical equipment and supplies, technology, retail, and toy sectors (see [Welcome section](#) above for list of participating companies).

Signatories such as Vizient, Walmart, Mind the Store Campaign, Investor Environmental Health Network, and EDF are among the leaders who are socializing corporations to the importance of reducing their chemical footprint and reporting on their journey to safer and healthier products, packaging, manufacturing operations, and supply chains. For example, Vizient, the health care group purchasing organization (GPO) that represents approximately \$100 billion in annual purchasing volume, invited all its awarded suppliers to participate in the 2019 CFP Survey. Vizient engages companies in chemical footprinting to “determine the levels of certain hazardous chemicals in packaging, products, the manufacturing process and/or supply chain. This method creates a baseline for evaluating chemical performance and tracking progress as we move toward safer alternatives.”²

DEMAND IS RISING FOR CHEMICAL FOOTPRINTING. THE NUMBER OF COMPANIES RESPONDING TO THE SURVEY GREW BY 29%.



Investor Environmental Health Network (IEHN) members engaged 46 companies in CFP including Dollar Tree, Hasbro, & Target

Mind the Store campaign to eliminate toxics in retail, gives points in its Retailer Report Card to companies participating in CFP

Vizient, with over \$100 billion in health care related purchasing volume, invited all its awarded suppliers to participate in the CFP 2019 Survey

Walmart is engaging private and national brand suppliers in meeting its goal of a reduced chemical footprint by 10% by 2022

The Environmental Defense Fund's new Supply Chain Solutions Center features resources to support chemicals management

KEY FINDING THE CFP SURVEY IS PROVEN TO BE AN EFFECTIVE FRAMEWORK FOR BETTER CHEMICALS MANAGEMENT

Returning companies, those companies that participated in the CFP Survey for multiple years (two, three, or four years)³ are demonstrating how to improve their chemicals management performance. Four years of CFP Survey results reveal on that the 21 returning companies in this year's Survey enhanced their chemicals management programs and thereby increased their CFP Scores from an average score of 53% of possible points in their first participation year in the Survey to 67% of possible points with 2018 data (see Figure 1).

Note that companies participating in this year's Survey, the 2019 CFP Survey, submitted data from the year 2018. Thus when we refer to the Survey, we call it the “2019 Survey.” And when we refer to the data from the 2019 Survey, we call it “2018 data.”

Companies that participated in more than one year of the Survey (“returning” companies) had significantly more robust chemicals management programs than they did in the first year they participated in the Survey, as well as in comparison to companies participating for the first time in the 2019 Survey (“new” companies). The improvements of returning companies over the years are fairly uniform across the four pillars of the Survey, with scores increasing as follows: Management Strategy up 27%; Chemical Inventory up 21%; Footprint Measurement up 28%; and Disclosure & Verification up 25%.

Returning companies improved most significantly in the following areas of the CFP Survey:

- **Creating and publicizing comprehensive corporate-wide chemical policy** — average score increased by 39%
- **Measuring chemical footprint** — average score increased by 79%
- **Tracking and reporting reductions in chemical footprint** — average score increased by 117%
- **Publicly disclosing CFP score** — average score increased by 183%

The rising scores among returning companies reflect focused efforts at articulating their chemicals management policy, measuring their footprint, and publicly sharing their progress. Additionally, companies are increasingly using the CFP Survey to guide the formation and implementation of their chemicals management programs.

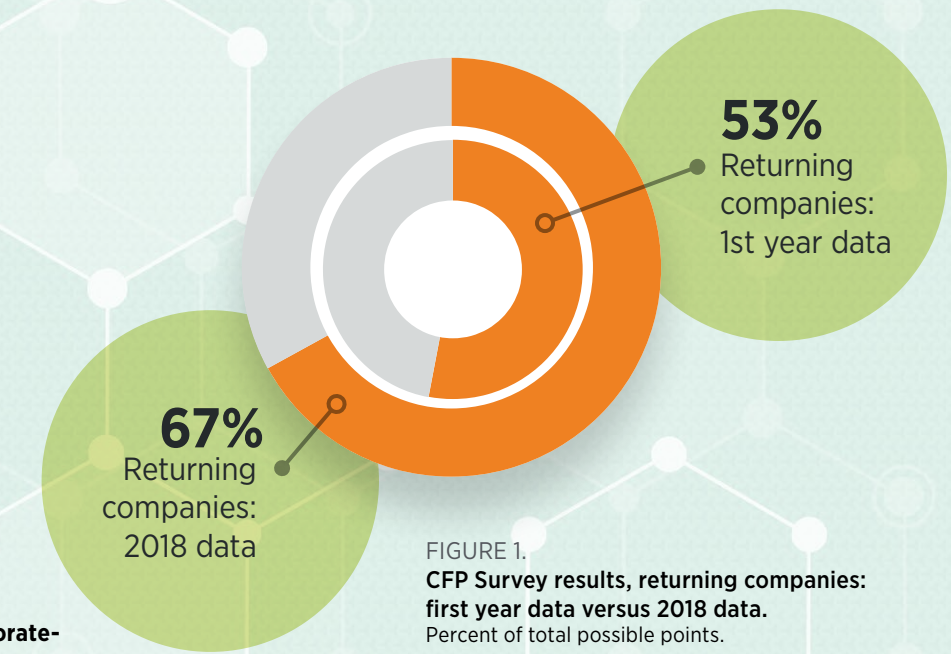


FIGURE 1. CFP Survey results, returning companies: first year data versus 2018 data. Percent of total possible points.

KEY FINDING SHARING THE JOURNEY

Moving beyond regulatory compliance to comprehensive chemicals management programs that track and reduce chemical footprints is a journey. Yet companies are often reluctant to publicly share where they are on their journey, preferring to announce successes after the fact rather than announcing goals and sharing progress towards them. The public disclosure of steps taken and challenges confronted empowers companies in proactively engaging customers and stakeholders on their progress, and supports the global movement towards a smaller chemical footprint. The CFP Survey enables companies to publicly share their journey and provides stakeholders with a consistent and common framework, developed by an independent non-governmental organization (NGO), for understanding and comparing where companies are on the path to safer chemicals.

Ten companies are this year's CFP disclosure leaders (see Box 1) because they agreed to publicly disclose both their answers to the 19 questions in the CFP Survey (topic D2) as well as their overall final score in the 2019 Survey (topic D3).⁴ Nine of the disclosure leaders are returning companies, with Steris PLC being the only first-time participant in the Survey to release both their answers and score. The ten companies are a mix of sizes and business sectors: small enterprises — Beautycounter, Case Medical, Inc., Naturepedic, and Seventh Generation; medium enterprises — Herman Miller, Inc., Levi Strauss & Co., and Steris PLC; and large enterprises — Becton Dickinson and Co. (BD), HP Inc., and Walmart Inc.⁵

BOX 1.

DISCLOSURE LEADERS IN THE CFP SURVEY, 2019

BEAUTYCOUNTER

LEVI STRAUSS & CO.

**BECTON DICKINSON AND
CO. (BD)**

NATUREPEDIC

CASE MEDICAL, INC.

SEVENTH GENERATION

HERMAN MILLER, INC.

STERIS PLC

HP INC.

WALMART INC.

BOX 2.

OVERALL FRONTRUNNERS IN THE CFP SURVEY, 2019

SEVENTH GENERATION

NATUREPEDIC

HP INC.

CASE MEDICAL, INC.

BEAUTYCOUNTER

HERMAN MILLER, INC.



KEY FINDING CHANGING THE COURSE OF PRODUCTION

The six frontrunners in the CFP 2019 Survey are all returning companies and disclosure leaders (see Box 2). Thirty-one companies participated in the 2019 Survey, up from 24 companies in 2018. Two of the 31 companies piloted the Survey, and their results are excluded from the Survey data. The six frontrunners all scored greater than 85% of possible points — reflecting the comprehensiveness of their chemicals management programs across all four pillar of the CFP Survey: Management Strategy, Chemical Inventory, Footprint Measurement, and Disclosure & Verification. The frontrunners represent a mix of small, medium, and large enterprises selling formulated products and/or articles. Together the frontrunners have 18 years of experience with the CFP Survey, and over time greatly expanded and deepened their chemicals management initiatives.

A highlight of four years of the CFP Survey is reported actual reductions in the use and sale of chemicals of high concern (CoHCs) in products:⁶ returning companies collectively reduced their chemical footprints, that is, their use of CoHCs, by 209 million kilograms or 461 million pounds — the equivalent weight of 628 Boeing 747 airplanes. This finding highlights the value of measuring an organization's chemical footprint year-over-year, tracking changes in the use of CoHCs in products and supply chains, setting goals to reduce CoHCs, and publicly reporting progress to those goals: companies can quantitatively state the progress they are making to a zero chemical footprint.

The frontrunners made significant improvements in four areas of chemicals management:

- **Corporate chemicals management policy (M1)** — their average score increased by 54%
- **Footprint measurement (F2)** — their average score increased by 41%
- **Footprint change (reductions) (F3)** — their average score increased by 92%
- **Disclosure & Verification Pillar** — average score for the entire pillar increased by 96%

SMALLER CHEMICAL FOOTPRINTS: over four years of the CFP Survey returning companies reported reducing 209,279,330 kilograms (461,381,416 pounds) of CoHCs — the equivalent weight of 628 Boeing 747 airliners. **PARKED NOSE-TO-TAIL, THE LINE OF PLANES WOULD SPAN 30 MILES!**



CHEMICALS OF HIGH CONCERN (COHCS) HARM PEOPLE & PLANET

Hazardous chemicals are pervasive in the economy. Across the world people are exposed to hazardous chemicals every day through the food they eat, the air they breathe, and the water they drink. As the United Nations highlighted in its recent Global Chemicals Outlook II report, hazardous chemicals “are ubiquitous in humans and the environment and are accumulating in material stocks and products, highlighting the need to avoid future legacies through sustainable materials management and circular business models.”⁷ For example, 99% of all Americans have the persistent and toxic chemicals known as PFAS (per- and polyfluoroalkyl substances) in their blood.⁸ Exposure to CoHCs results in significant costs to our health and the economy.

The array of adverse impacts from hazardous chemicals is vast and includes:

- Infertility: hazardous chemicals, especially endocrine disruptors, are increasingly linked to a) declining sperm counts in western men, down 59% in the last 40 years (see Figure 2);⁹ and b) difficulty conceiving, with one in seven to ten couples having problems getting pregnant or sustaining a pregnancy.¹⁰
- Polluted drinking water: PFAS, for example, have contaminated the drinking water of over 110 million Americans¹¹ and are known to “affect growth, learning, and behavior of infants and older children, lower a woman’s chance of getting pregnant, interfere with the body’s natural hormones, increase cholesterol levels, affect the immune system, [and] increase the risk of cancer.”¹²
- Death: a worker dies somewhere in the world every 30 seconds from exposure to hazardous chemicals in the workplace.¹³

The costs of inaction are significant, with exposure to:

- PFAS chemicals costing Europe alone \$59–\$95 billion in annual health-related costs;¹⁴
- Hazardous chemicals costing the U.S. more than \$340 billion a year in health care, social services, special education, and lost productivity;¹⁵ and
- Hazardous chemicals costing the world 10% of annual global gross domestic product or \$11 trillion a year in disease burdens.¹⁶

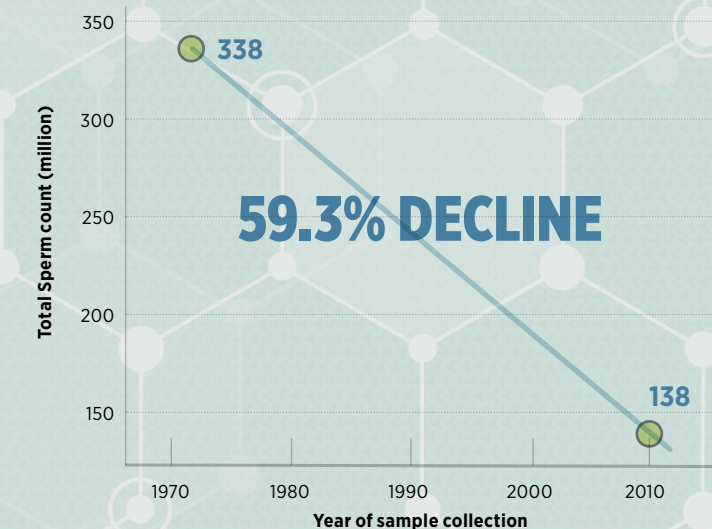


“THE GLOBAL GOAL TO MINIMIZE ADVERSE IMPACTS OF CHEMICALS AND WASTE WILL NOT BE ACHIEVED BY 2020. SOLUTIONS EXIST, BUT MORE AMBITIOUS WORLDWIDE ACTION BY ALL STAKEHOLDERS IS URGENTLY REQUIRED” UNITED NATIONS ENVIRONMENT PROGRAMME, GLOBAL CHEMICALS OUTLOOK II*

* United Nations Environment Programme, Global Chemicals Outlook II: From Legacies to Innovative Solutions: Implementing the 2030 Agenda for Sustainable Development, 2019, <https://www.unenvironment.org/resources/report/global-chemicals-outlook-ii-legacies-innovative-solutions>.

The CFP Survey defines a “chemical of high concern (CoHC)” as a “chemical that meets any of the following criteria: carcinogenic, mutagenic, or toxic to reproduction (CMR); persistent, bioaccumulative and toxic substance (PBT); any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that give rise to an equivalent level of concern (for example, an endocrine disruptor or neurotoxicant); or a chemical whose breakdown products result in a CoHC that meets any of the above criteria.”¹⁷ The Chemical Footprint Project seeks to replace the over 2,200 CoHCs identified by CFP with chemicals that are inherently safer for people and the planet.¹⁸

FIGURE 2. Declining Sperm Count (Levine et al., 2017)



CFP SIGNATORIES

Investors, health care organizations, NGOs, governments, and retailers want companies to participate in the CFP Survey and report on their progress to safer and healthier solutions to hazardous chemicals. Signatories encourage companies in their sphere of influence to participate in the CFP Survey and provide feedback to Clean Production Action on how to improve the Survey questions and response options.

Signatories are:

- Investors with **\$2.7 trillion in assets** under management (AUM)
- Health care systems, group purchasing organizations, & retailers with **over \$800 billion in purchasing power**

Investors

Adrian Dominican Sisters
 Advocate Health Care
 Anne Arundel Medical Group
 Arjuna Capital
 As You Sow Foundation
 Athens Impact Socially Responsible Investments
 Australian Ethical Investment
 Aviva Investors
 Bank J. Safra Sarasin Ltd.
 BNP Paribas Investment Partners
 Boston Common Asset Management
 Calvert Research & Management
 Carnegie Investment Counsel
 Christopher Reynolds Foundation
 Clean Yield Asset Management

Daughters of Charity, Province of St. Louise
 Domini Impact Investments
 Dominican Sisters of Hope
 Everence and the Praxis Mutual Funds
 Figure 8 Investment Strategies
 First Affirmative Financial Network
 Green Century Capital Management
 Harrington Investments
 Impax Asset Management
 Investor Voice
 JLens Investor Network
 Legal & General Investment Management
 Maryknoll Sisters
 Mercy Investment Services, Inc.
 Miller/Howard Investments
 Natural Investments
 Newground Social Investment
 NorthStar Asset Management
 Northwest Coalition for Responsible Investment
 Parnassus Investments
 Pax World Funds
 Rhode Island Treasury
 Signity Financial

Sisters of St. Francis of Philadelphia
 Sonen Capital
 St. Joseph Health
 The Rose Foundation for Communities and the Environment
 The Sustainability Group of Loring, Wolcott and Coolidge
 Trillium Asset Management
 Trinity Health
 Ursuline Sisters of Tildonk
 Walden Asset Management
 WHEB Asset Management
 Zevin Asset Management

Purchasers & NGOs

American Sustainable Business Council (ASBC)
 Blue Cross Blue Shield of Massachusetts
 ChemSec
 CVS Health
 Dignity Health
 Edward-Elmhurst Healthcare
 Environmental Defense Fund
 Fairview Health Services
 Geisinger Health System

Hackensack Meridian Health
 Inova Health Systems
 Interfaith Center on Corporate Responsibility (ICCR)
 Investor Environmental Health Network
 Kaiser Permanente
 Partners Healthcare
 Premier, Inc.
 Rite Aid
 SAHTECH
 Safer Chemicals, Healthy Families
 San Francisco Department of Environment
 Staples
 Target Corporation
 University of Cantabria
 University Hospitals
 Vizient, Inc.
 Walmart
 Zero Discharge of Hazardous Chemicals (ZDHC)

CFP SIGNATORY PROFILE: Investment Mercy Investment Services, Inc.

In an environment with increasing chemical regulation and market demand for safer chemicals, investors require clear, comparable information to assess company strategies for evaluating progress toward the use of safer chemicals. Mercy Investment Services' engagements with retailers and manufacturers on the issue of safer chemicals management center on the goal of ensuring that corporate policies and practices support the long-term safety and health of both consumers and the environment.

We use tools such as the Chemical Footprint Project to: 1) identify companies in different sectors that are setting best practices by taking a proactive approach to measure and manage their chemical footprints and mitigate risks before they occur; and 2) call companies to their responsibility to and the benefits of measuring and then managing the chemical footprint of their operations and supply chain. Consumer-facing companies and brands are particularly vulnerable to the risks of inadequately managing their chemical footprint, as evidenced in 2018 when home improvement stores faced considerable pressure from consumers and other stakeholders after a customer died from using a toxic paint stripper sold by the retailer. Ultimately, 13 major retailers recognized the reputational and potential legal risks they were facing and made commitments to ban the sale of these toxic paint strippers and identify safer alternatives.

It's not just chemical-based products like paint removers that are putting companies under fire from consumers and regulators. Companies in the food and beverage industry, including manufacturers, grocery retailers, and even restaurants face rising consumer concern about chemical residues found in food and food and beverage packaging, such as phthalates, Bisphenol A (BPA), and glyphosate. Additionally, states like California are beginning to implement their own regulatory standards for toxic chemicals and the labeling of products, all of which creates risks for companies that fail to adequately manage the chemical portfolio of their products.

While commitments to phase out specific chemicals of concern are certainly commendable as steps to protect consumer and environmental health, as investors, we ask companies to take further steps forward, including developing a comprehensive safer chemicals management policy and process. The Chemical Footprint Project and its annual survey have become the gold standard for providing a framework for companies to develop a comprehensive approach to safer chemicals. CFP provides a roadmap for companies to holistically examine their chemical footprint, management strategies, and disclosure and verification processes with the goal of identifying and mitigating risks posed by hazardous chemicals. This process represents chemicals management due diligence and a commitment to protect human and environmental health that is embedded within the company's long-term strategy. Our goal is to continue to support CFP's work and to engage companies on their responsibility to implement a safer chemicals management system.

Caroline Boden, Shareholder Advocacy Manager

“The Chemical Footprint Project and its annual survey have become the gold standard for providing a framework for companies to develop a comprehensive approach to safer chemicals.”



CFP SURVEY ALIGNS WITH SASB MATERIALITY METRICS

BOX 3. **SASB Standards with Chemical Risk Accounting Metrics include:**

APPAREL, ACCESSORIES & FOOTWEAR

BUILDING PRODUCTS & FURNISHINGS

HARDWARE [ELECTRONICS]

HOUSEHOLD & PERSONAL PRODUCTS

MEDICAL EQUIPMENT & SUPPLIES

MULTILINE AND SPECIALTY RETAILERS & DISTRIBUTORS

TOYS & SPORTING GOODS

Hazardous chemicals are financially material to businesses according to the Sustainability Accounting Standards Board (SASB). SASB, a globally recognized standards setting board, identifies sustainability issues that are financially material to businesses. Four of the world’s largest money managers — BlackRock, Vanguard, State Street Global Advisors, and Fidelity Investments — along with CalSTRS, CalPERS, and other state pension funds want businesses to report to SASB standards.¹⁹ Many of SASB’s 77 business sector standards, including apparel, building, retail (multiline and specialty), and medical, have accounting metrics for chemicals risks (see Box 3)²⁰. But businesses lack a common framework for tracking and reporting to SASB’s qualitative accounting metrics for chemical risks, making it difficult for investors to understand, track, and compare performance to these metrics. **The CFP Survey provides a common framework for publicly reporting to SASB’s chemical risk accounting metrics.**

SASB’s qualitative chemical risk accounting metrics include the following, that businesses shall discuss processes to:

- **“Assess and manage risks and/or hazards associated with chemicals in products”** — see the standards for: Apparel, Accessories & Footwear; Building Products & Furnishings; Multiline and Specialty Retailers & Distributors; and Toys & Sporting Goods.
- **“Assess and manage environmental and human health considerations associated with chemicals in products, and meet demand for sustainable products”** — see the standard for Medical Equipment & Supplies.
- **“Identify and manage emerging materials and chemicals of concern”** — see the standard for Household & Personal Products.²⁰

Connecting the dots, this means that the world’s largest money managers and major state pension funds want to know how: a) **apparel, building product, retail, and toy companies manage hazards associated with chemicals in products;** b) **medical companies manage environmental and human health considerations associated with chemicals in products;** and c) **household/personal product companies identify and manage emerging materials and chemicals of concern.** Within each SASB standard are detailed requirements as to how companies shall report to these qualitative metrics. Table 1 examines the detailed SASB accounting metrics for the retailer standard (i.e., *Multiline and Specialty Retailers & Distributors Standard*) and how the CFP Survey meets the SASB reporting requirements.

Within the Chemical Footprint Project community, CFP Investor Signatories engage companies in using the CFP Survey as a common framework for reporting to SASB metrics as well as to other environmental, social and governance (ESG) disclosure standards.



“FOUR OF THE WORLD’S LARGEST MONEY MANAGERS — BLACKROCK, VANGUARD, STATE STREET GLOBAL ADVISORS, AND FIDELITY INVESTMENTS — ALONG WITH CALSTRS, CALPERS, AND OTHER STATE PENSION FUNDS WANT BUSINESSES TO REPORT TO SASB STANDARDS.”

TABLE 1. **Aligning CFP Survey Questions and Resonse Options with SASB Accounting Metrics — the Case of the SASB Retailer Standard**

SASB Standard for Retailers:²¹ Requirements for Accounting Metric: “Assess and manage risks and/or hazards associated with chemicals in products” (CG-MR-410a.2)	Chemical Footprint Project Survey (CFP) CFP Survey Questions & Response Options Relevant to SASB Accounting Metrics
1. Discuss the business and operational processes employed to assess and manage potential risks and hazards associated with materials, chemicals, and substances in products offered for sale	The 4 pillars of the CFP Survey specify a holistic chemicals management framework: 1) having a policy that ensures senior management engagement and commitment to assessing chemical risk (Management Strategy pillar); 2) knowing chemicals in products and supply chains (Chemical Inventory pillar); 3) assessing and avoiding hazardous chemicals, and selecting safer alternatives (Footprint Measurement pillar); and 4) disclosing chemical ingredients in products and CFP answers/scores (Disclosure & Verification pillar). Responses to Management Strategy pillar questions (M1, M2, M3, and M4) are especially relevant to SASB metric #1.
2. Describe whether approach to chemicals management is characterized by a hazard-based, risk-based, or other approach	The CFP Survey is a hazard based framework of chemicals management. A company’s CFP Survey score reflects the scope and depth of its investment in hazard-based chemicals management. The CFP’s: a) list of chemicals of high concern (CoHCs) is a hazard-based list of chemicals built from GreenScreen® for Safer Chemicals; b) definition of “chemical footprint” is the total mass of CoHCs; and c) definition of “safer alternative” is an inherently less hazardous chemical, material, or product.
3. Discuss the operational processes employed for chemicals management (for example, use of restricted substances lists — RSLs)	Responses to the Chemical Inventory pillar (6 questions) — which cover what a company knows about chemicals in its products and supply chains, the scope and enforcement of its RSL, and how it engages suppliers in collecting chemical ingredient information — address SASB metric #3.
4. Describe how chemicals for reduction/elimination from products offered for sale are prioritized, how the priorities are communicated to suppliers and compliance is enforced, and whether suppliers are encouraged/required to consider alternative chemicals in products	Responses to the Footprint Measurement pillar (5 questions) — which cover hazard reduction goals, chemical footprint measurement, actual hazard reductions, and investments in safer alternatives — along with the supplier questions in Chemical Inventory (I3 and I6) address SASB metric #4.
5. Describe policies and practices for disclosing full chemical formulations for the products offered for sale	Responses to M1 in Management Strategy and D1 in the Disclosure & Verification pillar — which cover corporate chemical policies (M1) and the scope of public ingredient disclosure of chemicals in products (D1) — address SASB metric #5.
6. Disclose if testing and/or third-party certification to verify chemical content is pursued	Responses to I6 in Chemical Inventory address the scope of activities companies take to verify chemical content, including audits, testing of products in third party approved laboratories, and/or routinely testing products.
7. Optional: list chemicals the business has found in products for which it has a policy to reduce, eliminate, or assess	The CFP Survey addresses chemicals beyond RSLs through the CFP list of Chemicals of High Concern (CoHCs), which includes over 2,200 chemicals listed by authoritative bodies as carcinogenic, mutagenic, reproductive or developmental toxicant, endocrine disruptor, or persistent, bioaccumulative and toxic (PBT). Responses to F1 and F2 in Footprint Measurement address goals companies have to reduce CoHCs as well as their total use of CoHCs. Additionally responses to I3 in Chemical Inventory address whether companies have a “Watch List” of chemicals beyond RSLs.

THE CFP SURVEY

19 questions leading companies to environmentally sound chemicals management — a holistic framework necessary for systemic solutions



Management Strategy

Management Strategy (20 points): evaluates the scope of corporate chemicals policies and their integration into business strategy, accountability, and employees' incentives for safer chemical use, as well as the company's external advocacy for safer chemical use.



Chemical Inventory

Chemical Inventory (30 points): evaluates the efforts a company makes to identify chemicals of high concern (CoHCs) in its products, the extent of chemical data collected from its suppliers, and its systems for managing chemical data and ensuring supplier compliance with its reporting requirements.



Footprint Measurement

Footprint Measurement (30 points): evaluates the goals that a company sets to reduce chemicals of high concern, its efforts to establish a baseline chemical footprint and measure progress, and its process for assessing and implementing safer alternatives.



Disclosure & Verification

Disclosure and Verification (20 points): evaluates the extent to which a company publicly discloses the chemicals in its products beyond regulatory requirements, discloses its score and its answers to the CFP Survey questions, and whether its CFP Survey answers have been independently verified by a third party.



CFP 2019 SURVEY RESULTS

Participating in the CFP Survey demonstrates leadership in chemicals management — the willingness and capacity of a company to report to an independent, non-governmental organization (NGO) on efforts to reduce its chemical footprint. Filling in the Survey, however, is not easy. It requires time and knowledge that a business may not readily have at its fingertips. The earlier companies start using the Survey the sooner they learn their strengths as well as their opportunities for improvement. Consider the Survey as a fitness test of a company's chemicals management policies, procedures, and practices, and how well it scores relative to the demands of investors and customers.

Participants in the 2019 Survey ranged in size from small, privately-owned companies to large, publicly-owned multinational corporations, and included seven business sectors (see Welcome section for details). Of the 31 participating companies, two were pilots whose data were not included in the scoring of the Survey results.²² Two important notes on the 2019 Survey are as follows. First, this is called "CFP 2019 Survey" because the responding companies filled in the Survey in 2019. But the companies reported on their activities for the year 2018. Thus, when referring to the data submitted, we call it "2018 data" and when referring to the survey we call it the "2019 Survey." Second, throughout this report we refer to "new" and "returning" companies. "New companies" participated for the first time in the 2019 Survey, and have only one year of data, 2018 data. "Returning companies" participated more than once in the Survey, and therefore have more than one year of data. We report returning company data for two points in time: a) first year data — the first year the companies participated in the Survey;³ and b) this year's data, 2018 data.

Overall scores in the CFP Survey improved, with the average score rising from 41% of possible points in the first data year (2015) to 61% in 2018 (see Figure 3, "All Four Pillars"). Across the specific pillars of the Survey (see Figure 3), changes in scores from 2017 to 2018 varied depending on the degree to which new companies performed below average and returning participants performed above average. In comparison to their first year in the Survey, the 21 returning companies improved their performance across all four pillars of the Survey, (see Figure 4):

- **Disclosure & Verification Pillar** — up 23% of possible points from first participation year (24% first year data to 47% of possible points in 2018 data);
- **Management Strategy Pillar** — up 20% of possible points from first participation year (56% first year data to 76% of possible points in 2018);
- **Footprint Measurement Pillar** — up 11% of possible points from first participation year (53% first year data to 64% of possible points in 2018);
- **Chemical Inventory Pillar** — up 9% of possible points from first participation year (68% first year data to 79% of possible points in 2018).

Figure 4 also reveals that new companies entered into the Survey with lower scores, reflecting less investment in chemicals management beyond regulatory compliance, than returning companies in their first year. Returning companies scored 53% of possible points in their first year versus new companies, which scored 45% of possible points (see Figure 4 "All Four Pillars"). The overall results reflect, as detailed below, the increasing investments returning companies have made in chemicals management and the outcomes they have achieved across the four pillars of the CFP Survey.

FIGURE 3. CFP 2019 Survey, 4 years of data (2015–2018) Average scores across the 4 pillars (percent of possible points scored/pillar)

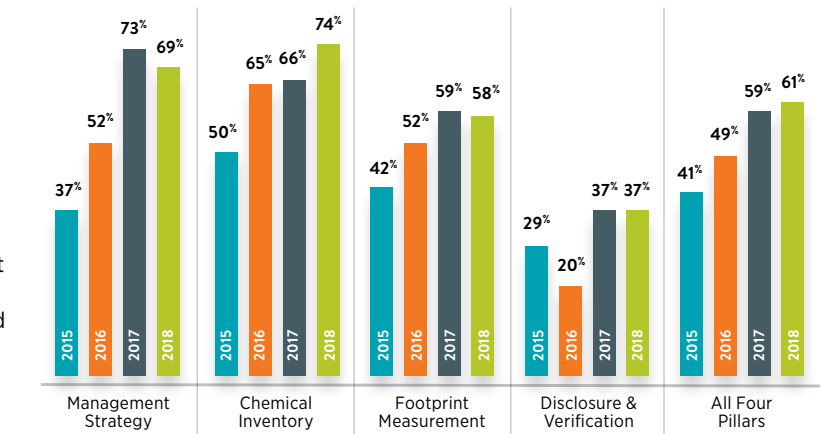
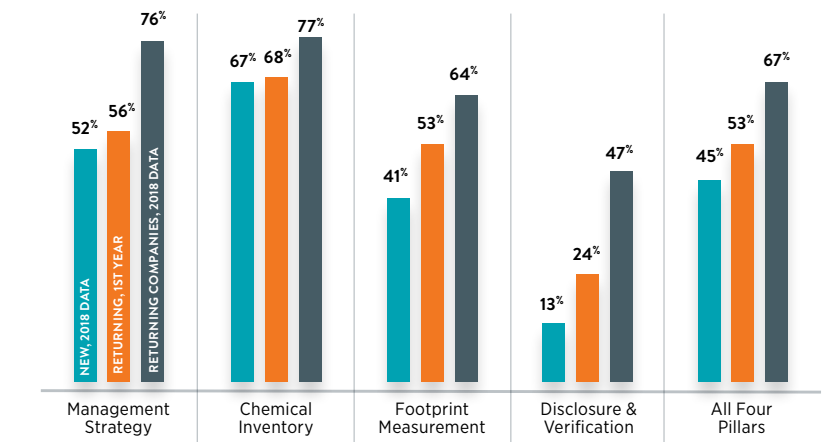


FIGURE 4. CFP 2019 Survey, new and returning companies Average scores across the 4 pillars (percent of possible points scored/pillar)



2019 SURVEY MANAGEMENT STRATEGY

Senior management engagement is essential for businesses to move beyond regulatory compliance in chemicals management. Yet many companies lack senior management knowledge of chemical risks, as well as their engagement in reducing those risks and working to capture market opportunities from safer chemicals. The Management Strategy pillar addresses how senior managers can proactively engage in chemicals management through corporate policies, business strategies, public advocacy, and accountability metrics.

Continuous improvement: returning companies improved their scores most significantly from their first year in the Survey (see Figure 5) by:

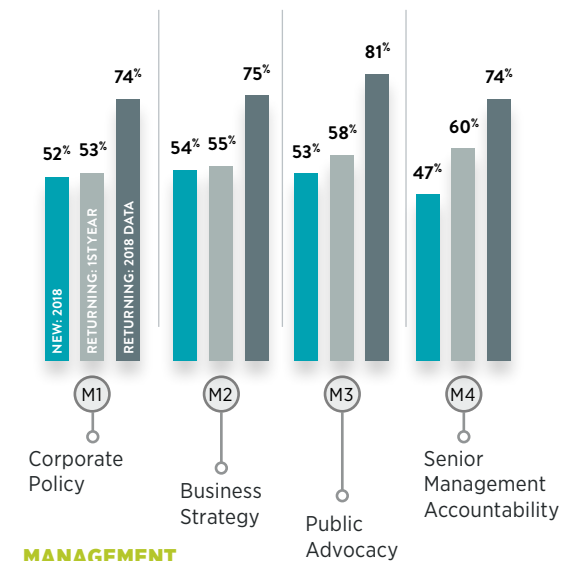
- **supporting public policies and industry standards that advance safer chemicals** — up 23% of possible points from first year (M3);
- **integrating reduced CoHCs and preferred safer alternatives into business strategy** — up 20% of possible points from first year (M2); and
- **expanding organization-wide chemicals policies** — up 21% of possible points from first year (M1).

An organization's chemicals policy sets the tone and direction from senior management concerning chemicals and materials management. CFP Survey question M1 evaluates a company's chemicals policy on three levels. First, how comprehensive is the policy — does it include products, packaging, manufacturing, facilities, and supply chains? Second, does the policy commit the organization to avoiding chemicals of high concern (CoHCs) and/or preferring safer alternatives? Third, does the company publicly disclose the policy on its website? Findings from the 2019 Survey on chemicals management policies (question M1) included:

- **81% of all companies have a chemicals policy** that includes at least a commitment to reducing the use of CoHCs in products;
- **all companies averaged 68% of possible points for M1**, up from 42% in 2015 (see Figure 6); and
- **returning companies scored 74% of possible points for M1**, up from 53% in their first participation year, because they: a) expanded the scope of their policies beyond products to include packaging, manufacturing, facilities, and/or supply chains; b) expanded commitments to preferring safer chemicals; and/or c) disclosed the policy to the public.

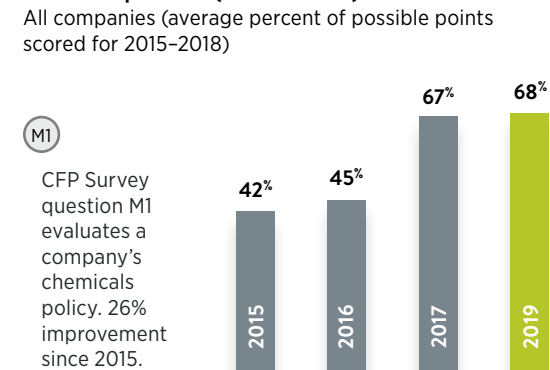
Results from the 2019 Survey reveal that senior management is becoming increasingly engaged in chemicals management, which bodes well for generating future reductions in corporate chemical footprints.

FIGURE 5. CFP Survey results, management strategy, new and returning companies
Percent of possible points scored per question



MANAGEMENT STRATEGY (SECTION M) TOPICS

FIGURE 6. CFP Survey results, management strategy — chemical policies (Question M1)
All companies (average percent of possible points scored for 2015–2018)



M1 CFP Survey question M1 evaluates a company's chemicals policy. 26% improvement since 2015.

Building consumer trust and brand strength through footprinting

Seventh Generation believes in protecting the health of the next seven generations. We believe business value, including consumer trust and loyalty, comes from greater transparency and addressing chemicals of concern. Our aspirations to “enhance health” and “nurture nature” begin with chemical transparency across the supply chain and have progressed through seeking safer alternatives to ingredients in long-standing use in the industry that many consider to be chemicals of concern.

Seventh Generation has published 2020 goals that include removal of any non-preferred materials and details our journey to eliminate chronic toxicants in our [2017 Sustainability Report](#). We work closely with suppliers to ensure ingredients and finished products meet our stringent ingredient and quality standards. We follow up with authenticity testing of both ingredients and finished products. When unexpected chemicals are detected, for example, due to cross-contamination, we research the cause and aspire to be transparent with stakeholders about the findings and solution. We disclose all intentionally added ingredients for all products to the consumer, including the presence of fragrance allergens.

We have steadily improved our score in the CFP Survey over three years as we made continuous improvements to our chemicals management and hazard reduction. In 2019, we received 98 out of 100 points, the highest CFP Survey score by any company to date. We also eliminated all of the chemicals on the CFP Chemicals of High Concern List as ingredients from our products, reducing the chemical footprint of our product portfolio to zero.



Beyond our products, Seventh Generation is deeply involved in advocating for stricter chemicals management and reporting, both at the federal and state level, and has worked tirelessly in driving the homecare industry toward ingredient disclosure. In 2017, Seventh Generation played a critical role in the passing of California's Cleaning Product Right to Know Act, which requires the disclosure of ingredients in cleaning products sold in the state.

We are a member company of the Beauty and Personal Care Leadership Group, where representatives from across the beauty and personal products supply chain are working together to develop a common assessment tool for evaluating the sustainability of beauty and personal care products, with the goal of simplifying and aligning the wide array of product assessment criteria in use today.

Our commitments to developing safe and effective products and to building trust through transparency have been the foundation of our success. We believe consumers have the right to know what's in the products they buy, and to trust the companies they are supporting. This resonates with consumers: when they understand our mission and practices, they are twice as likely to be loyal to our business.

Martin Wolf, Director of Sustainability & Authenticity

“
We eliminated all of the chemicals on the CFP Chemicals of High Concern List (CoHCs) as ingredients from our products, reducing the chemical footprint of our product portfolio to zero”



CFP RESPONDER PROFILE: SEVENTH GENERATION™

2019 SURVEY CHEMICAL INVENTORY

Knowing chemicals in products and supply chains is a critical step towards reducing chemical footprints. Yet companies often lack visibility into their complex supply chains, and suppliers are often reluctant to disclose to customers the chemicals in their products. The CFP Survey's Chemical Inventory questions and response options define a clear series of practical and achievable steps companies can take to achieve greater clarity and certainty of chemicals in their products and supply chains.

Restricted Substances Lists (RSLs) & Manufacturing RSLs (MRSLs)(question I1) — the first action companies often take beyond regulatory compliance is creating an RSL, for products, or MRSL, for manufacturing process chemicals. Knowing and restricting chemicals in products and manufacturing, including supply chains, involves identifying CoHCs and specifying that suppliers avoid these chemicals in products and/or production. Findings from the CFP 2019 Survey included (see Figure 7):

- RSL: 93% of companies have either a required RSL (76% of companies) or preferred RSL (17% of companies);²³
- MRSL:²⁴ 31% of companies have an MRSL for their manufacturing operations and/or for their suppliers; and
- disclosure: 52% publicly disclose their RSL or MRSL.

Continuous improvement: returning companies improved most dramatically from their first year in the Survey in: asking for (I3), receiving (I4), and managing (I5) chemical ingredient information (see Figure 8). Improvements in RSLs/MRSLs (I1) and supplier conformance (I2 and I6) were much more modest, indicating that returning companies are investing greater resources in collecting and managing chemical ingredient information than expanding RSLs/MRSLs or managing suppliers. Overall, returning companies scored 80% or more of possible points for all the Inventory questions except the supplier-related questions of I2 and I6 (see Figure 8).

Full Chemical Ingredient Disclosure from Suppliers (questions I3 and I4) is the Holy Grail in chemical inventory work — asking for and receiving full chemical ingredient information from suppliers. In the 2019 Survey, 72% of companies required suppliers to provide full information (question I3) for at least part of their product portfolio. Of that 72%, companies reported receiving full chemical ingredient information for an average of 70% of their product portfolios (question I4). These findings highlight the positive trend that more companies, especially companies selling articles, require full chemical ingredient information from suppliers and nearly two thirds receive that information. Brands and manufacturers continue to confront the challenge of getting suppliers to be fully compliant with the sharing of chemical ingredients in their products.

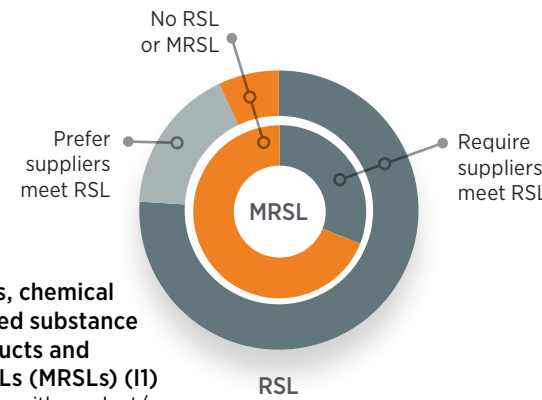
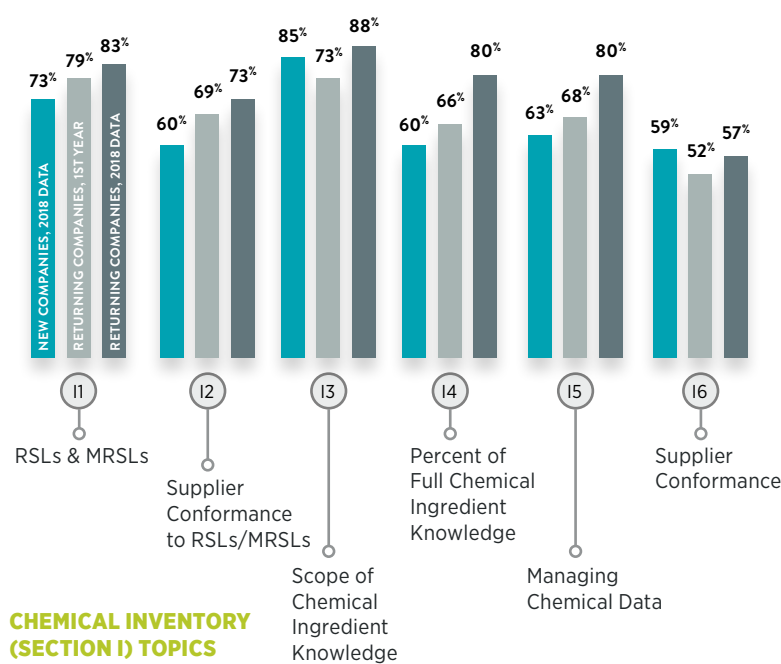


FIGURE 7. CFP Survey results, chemical inventory, restricted substance list (RSLs) in products and manufacturing RSLs (MRSLs) (I1) Percent of companies with product/manufacturing requirements (2018 data)

FIGURE 8. CFP Survey results, chemical inventory, new and returning companies Percent of possible points scored per question



CHEMICAL INVENTORY (SECTION I) TOPICS



CFP RESPONDER PROFILE:

Radio Flyer is Measuring to Manage Safer Materials

Radio Flyer's goal is to create outstanding, safe kids' products and warm memories that last a lifetime. A major part of that goal involves knowing the chemical makeup of our products so that we can guarantee to our consumers that their children are playing with a safe and responsibly-made product.

Radio Flyer sought external subject matter assistance from consulting firm Pure Strategies as it began to enhance its requirements and engagement with suppliers on chemicals. We created and implemented a restricted substances list (RSL) to limit and ban specific chemicals of concern (e.g., PVC) in both the finished product and in manufacturing (to protect workers). In addition to complying with the Radio Flyer Restricted Substances List (RSL), we also request that suppliers share the CAS #, chemical name, and weight composition of each chemical intentionally added in their product part.

Radio Flyer's internal culture is underpinned by tracking progress against quantifiable goals. To benchmark our program and assess potential areas for improvement, we completed the CFP Survey every year since 2015, the first year the Survey was available. We believe we get better at what we measure.

When reviewing improvement opportunities from the CFP Survey, quantifying the company's footprint rose to the top. The idea of measuring chemicals of concern resonated with the company's approach and provided a common and easily understood metric to track progress in chemicals management. We calculated our first chemical footprint in 2017. Determining the footprint for the first time involved an increased level of effort for Radio Flyer, with demands to know more about the supply chain, chemicals used to make product parts, and if the materials are chemicals of concern. To get started, we aligned with CFP's definition of a chemical of high concern (CoHC) and selected key products in our portfolio that represented over 80% of the sales volume across the main product lines. The scope was all intentionally added materials in products and impurities of concern, but not processes and packaging.

The footprinting effort has helped us reach new levels of achievement across our broad chemicals management program. We found that it facilitated: 1) greater transparency, knowing what is in our products and supply chains, in order to improve materials; and 2) stronger accountability across the supply chain through a better understanding of inputs and processes (reaching across other company priorities, such as quality). It is particularly notable that Radio Flyer has already realized a number of benefits, transparency and accountability, from the footprinting effort. As our program evolves and moves to safer materials, we are sure to gain more value from the investment.

Eric Selner, Director of Operations & Sustainability

“Determining the footprint for the first time involved an increased level of effort for Radio Flyer, with demands to know more about the supply chain, chemicals used to make product parts, and if the materials are chemicals of concern.”



*Pure Strategies first reported on Radio Flyer's successes and lessons learned with CFP in their report, The Power of Chemical Footprinting (<https://purestrategies.com/downloads/the-power-of-chemical-footprinting>).

2019 SURVEY FOOTPRINT MEASUREMENT

“You can’t manage what you don’t measure.” Footprinting has hit the mainstream in climate change where thousands of companies report annually on their carbon footprints. Yet very few companies measure and report their chemical footprint.¹ The CFP Survey supports the growth and development of chemical footprinting by engaging companies in reporting: goals for reducing chemicals of high concern (CoHCs — question F1); chemical footprint in products (question F2); and changes in their chemical footprint (question F3).

Key highlights from the 2018 data are:

- **66% of companies have goals to reduce CoHCs**
- **72% of companies calculated their chemical footprint** (see Figure 9)
- **28% of companies do not sell products with any CoHCs as ingredients** (see Figure 9)
- **Companies reported having in products sold:**
 - **7 to 235 CoHCs**
 - **150 million kilograms (kgs) of CoHCs** (or 331 million pounds (lbs))
- Companies reported **significant reductions in CoHCs in products sold:**
 - **1.3 million kgs from 2017 to 2018** (or 3.0 million lbs)
 - **209 million kgs, the equivalent of 628 Boeing 747 airplanes, from 2015–2018** (or 461 million lbs)

The CFP Survey provides companies with two different metrics for reporting their chemical footprint (F2). First, and most comprehensive, companies can calculate their footprint using the CFP list of over 2,200 CoHCs.²⁵ Sixty three percent of companies calculated their chemical footprint to the CFP CoHC list in 2018 (as well as in 2017): 28% used no CoHCs + 21% calculated CoHC footprint by mass (weight of CoHCs) + 14% calculated CoHCs by count (number of CoHCs) in 2018 (see Figure 9). Second, companies can calculate their footprint using the shorter European Union REACH Candidate List of Substances of Very High Concern (currently 201 chemicals) — 10% chose this pathway in 2018. Lastly companies can opt out and not calculate their footprint — 28% chose this option in 2018.²⁶

Returning companies are making significant strides in calculating (F2) and reducing chemical footprints (F3) (see Figure 10). The 2018 data highlight that returning companies are learning to calculate their chemical footprint. The average score of returning companies rose dramatically from 39% in their first year to 71% of possible points scored with their 2018 data. Similarly, returning companies increased points scored for tracking changes in their chemical footprint from 38% in the first year to 57% in 2018 data. **Responses to F2 and F3 highlight the importance and value of consistently participating in the Survey and utilizing this participation to measure and track changes in an organization’s chemical footprint.**

FIGURE 9. CFP Survey results, chemical footprint measurement (F2) Percent of companies by footprint metric (2017 & 2018 data)

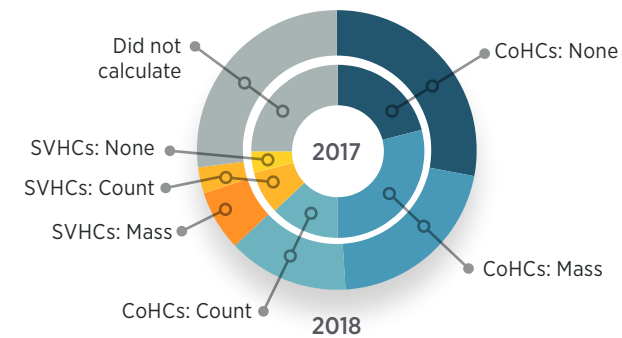
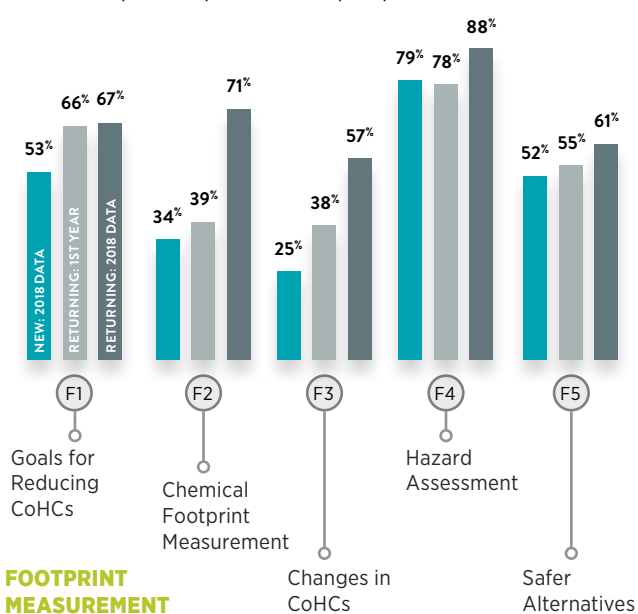


FIGURE 10. CFP Survey results, footprint measurement, new and returning companies Percent of possible points scored per question



FOOTPRINT MEASUREMENT (SECTION F) TOPICS

2019 SURVEY DISCLOSURE & VERIFICATION

Sharing the journey to safer chemicals matters to customers, NGOs, and investors — yet companies are often reluctant to publicly share where they are at on their chemicals management journey. The CFP Survey provides a safe haven for beginning and expanding the disclosure journey.

Learning to share a company’s chemicals management journey takes time. Four years of CFP Survey data reveals that companies are becoming more acclimated to the Survey and more willing to publicly share their results. Figure 11 highlights how returning companies are sharing and verifying more of their data relative to both the first year they entered the Survey and the 2018 data from new companies. Returning companies, in comparison to their first year in the Survey, were more likely to (see Figure 11):

- publicly share the chemical ingredient content of their products (D1) — percent of possible points scored up 13%
- publicly share their CFP Survey score (D3) — percent of possible points scored scores up 40%
- verify their CFP Survey responses (D4) — percent of possible points scored scores up 15%

Additionally, 52% of returning companies publicly share their CFP answers (D2).²⁷

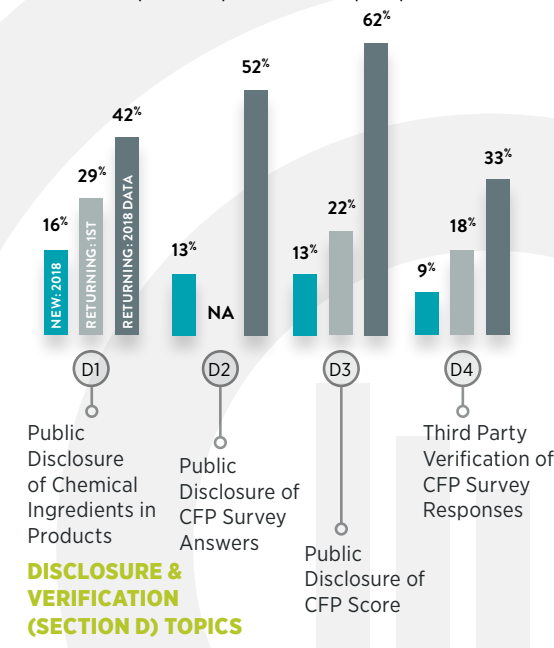
Among all 29 companies participating in the 2019 Survey, 12 agreed to publicly release their CFP answers (D2), 14 agreed to publicly release their CFP scores (D4), and 10 agreed to publicly release both their answers and scores. New participants in the CFP Survey are understandably reluctant to publicly share their CFP answers (D2) and scores (D3) because they must agree to share answers and scores before they know what their score will be. Thus, **we encourage companies to get started with the CFP Survey, fill it in as best as they can in the first year, thereby setting an internal baseline and increasing their willingness and capacity to publicly share their journey in the future.**

Companies are doing more in chemicals management than they reveal publicly. Figure 12 lists CFP questions with a public disclosure element (e.g., do you publicly share your corporate chemicals management policy), the percent of companies answering affirmatively, and the percent of all companies publicly disclosing that information. The four questions listed in Figure 12 demonstrate the degree of reluctance of companies to publicly share their chemicals management activities:

- 21% of companies with a chemicals policy do not share it publicly (M1)
- 45% of companies with a RSL do not share it publicly (I2)
- 25% of companies with a hazard reduction goal do not share it publicly (F1)
- 20% of companies with a safer alternatives definition do not share it publicly (F5)

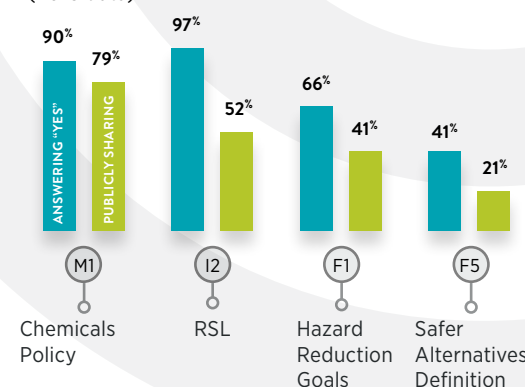
The CFP Survey provides companies with a framework for communicating with stakeholders where they are on their journey to better chemicals management, helping to identify gaps in communications (such as not publicly sharing a RSL) as well as providing a common and consistent framework for communicating progress over time.

FIGURE 11. CFP Survey results, disclosure & verification, new and returning companies Percent of possible points scored per question



DISCLOSURE & VERIFICATION (SECTION D) TOPICS

FIGURE 12. Public disclosure of question M1, I2, F1, and F5 Percent of companies answering “Yes” and percent of all companies that publicly share the information (2018 data)



PUBLIC DISCLOSURE TOPICS

COMPANY SIZE & CHEMICALS MANAGEMENT

Small- and medium-size enterprises (SMEs) are often considered to be at a competitive disadvantage in chemicals management because they lack the resources and capacities of larger enterprises. Yet the CFP Survey data does not bear out this assumption. In fact, the CFP Survey results consistently find that small companies perform as well if not better than large companies in chemicals management.

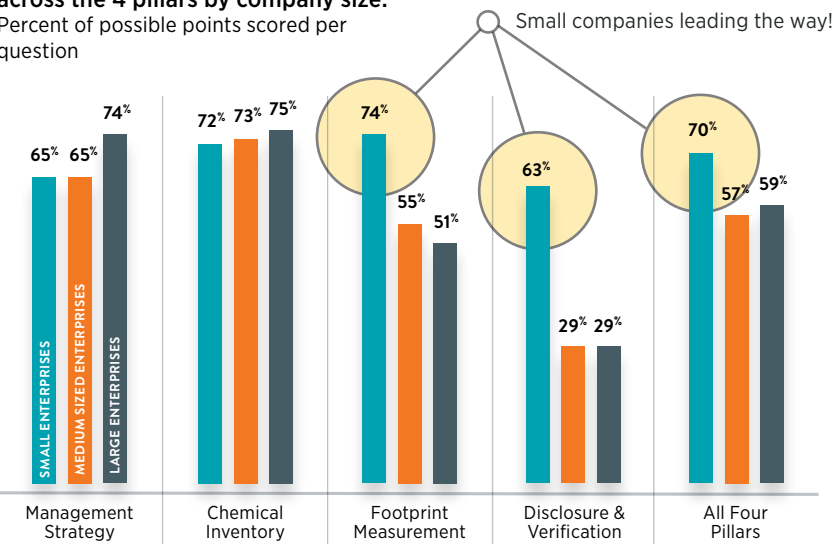
By company size, the 2019 Survey participants included: 7 small companies; 9 medium companies; and 13 large companies.²⁸ Across all product types in the 2019 CFP Survey (see Figure 13):

- **Small companies scored the highest percent of possible points for:**
 - **Footprint Measurement pillar = 74%**
 - Followed by medium (55%) and large (51%) companies
 - **Disclosure & Verification pillar = 63%**
 - Followed by medium and large companies both scoring 29%
 - **All Four pillars = 70%**
 - Followed by large (59%) and medium (57%) companies
- **Large companies scored the highest percent of possible points for:**
 - **Management Strategy = 74%**
 - Followed by small and medium companies both scoring 65%
 - **Chemical Inventory = 75%**
 - Followed by medium (73%) and small (72%) companies

Small companies performed better in the Footprint Measurement pillar because many of them sell products that do not contain any CoHCs and in the Disclosure & Verification pillar because they prominently disclose chemical ingredients in their products, and publicly disclose their CFP answers and scores. Large companies, with strengths in policies and procedures, performed incrementally better in the Management Strategy and Chemical Inventory pillars than smaller companies.

We acknowledge that the CFP Survey results concerning company size may be skewed by the presence of small companies whose mission is to sell green and healthy products, such as Beautycounter, Case Medical, Naturepedic, and Seventh Generation. But these companies demonstrate that **size does not dictate ability to have effective chemicals management policies, procedures, and practices that lead to low and zero chemical footprints.**

FIGURE 13. CFP Survey results, average scores across the 4 pillars by company size. Percent of possible points scored per question



COMPANIES PARTICIPATING IN THE 2019 CFP SURVEY BY SIZE

- SMALL (<\$500 MILLION): 7 COMPANIES**
- MEDIUM (\$500M - \$5 BILLION): 9 COMPANIES**
- LARGE (>\$5 BILLION): 13 COMPANIES**

JOIN US ON THE CHEMICAL FOOTPRINT JOURNEY

The CFP Survey is a guide to best practices in corporate chemicals management. By engaging with the Survey year over year, companies can identify pragmatic areas for improvement and track their progress, enabling them to identify and minimize business risks associated with the use of hazardous chemicals as well as to capture new market opportunities.

Leading brands from the building product, retail, technology, apparel/footwear, household and personal product, medical product, and toy/sporting good sectors participate in the CFP Survey:

- Report to a replicable, independent, and comparable framework.
- Leverage CFP for meeting SASB reporting requirements.
- Provide meaningful disclosure to investors, purchasers, NGOs, and the general public.
- Continuously improve chemicals management performance.
- Unlock chemical and material health strategies for driving long-term growth.

We encourage all companies interested in participating in the Survey to download the Guidance document, review the questions and response options, and contact us at moreinfo@chemicalfootprint.org with questions.

Upcoming activities and learning opportunities are posted at www.chemicalfootprint.org. For companies first reporting into the CFP Survey, an onboarding option is available to report for a select portfolio of products or division of the company.

Our CFP Verifiers — Pure Strategies, SAHTECH, and WAP Sustainability Consulting — are helpful resources to understand the value of CFP and documentation requirements. In addition to the upcoming next steps highlighted in the side box, in 2020 Clean Production Action will develop criteria for measuring chemical footprints in supply chains through our BizNGO (www.bizngo.org) collaboration.

For investors, retailers, governments, and health care systems, join CFP as a Signatory. CFP Signatories engage their stakeholders in participating in the Survey and leverage the systemic framework and findings of the Survey to inform their decision making.

CFP Survey: Next Steps

Guidance document

Release: Q4 2019

Online Survey:

Opens: February 3, 2020

Closes: April 30, 2020

CFP Webinar Series on 2019 Results & 2020 Survey

Q1 2020

ENDNOTES

- The Chemical Footprint Project Survey 2018 Guidance Document defines "Chemical Footprint" as the "total mass of chemicals of high concern (CoHCs) in products sold by a company, used in its manufacturing operations, facilities, by its suppliers, or contained in packaging." https://www.chemicalfootprint.org/assets/downloads/cfp_guidance_2018_20190102.pdf.
- Vizient, 2018 Corporate Responsibility Report, https://cr.vizientinc.com/documents/Vizient_2018CorporateResponsibilityReport.pdf, accessed November 3, 2019.
- The 21 returning companies participated in the following number of surveys: eight participated in two years of the survey; six participated in three years of the survey; and seven participated in all four years of the survey. The "first year" data for returning companies were calculated by aggregating the data from the first year that each company participated in the survey.
- Go to www.chemicalfootprint.org for all disclosure details from these and other companies that agreed to share either their CFP Survey answers or scores.
- The Chemical Footprint Project defines company size on the basis of annual revenue: small enterprises = <\$0.5 billion in annual revenue; medium enterprises = \$0.5 – \$5.0 billion in annual revenue; and large enterprises = >\$5.0 billion in annual revenue.
- The Chemical Footprint Project Survey 2018 Guidance Document defines "Chemical of High Concern (CoHC)" as a "chemical that meets any of the following criteria: carcinogenic, mutagenic, or toxic to reproduction (CMR); persistent, bioaccumulative and toxic substance (PBT); any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that give rise to an equivalent level of concern (for example, an endocrine disruptor or neurotoxicant); or a chemical whose breakdown products result in a CoHC that meets any of the above criteria." https://www.chemicalfootprint.org/assets/downloads/cfp_guidance_2018_20190102.pdf.
- United Nations Environment Programme, *Global Chemicals Outlook II: From Legacies to Innovative Solutions: Implementing the 2030 Agenda for Sustainable Development*, 2019, <https://www.unenvironment.org/resources/report/global-chemicals-outlook-ii-legacies-innovative-solutions>.
- U.S. Department for Health and Human Services, Centers for Disease Control and Prevention, *Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, January 2019*, 2019, <https://www.cdc.gov/exposurereport/>.
- Hagai Levine, et al., "Temporal trends in sperm count: a systematic review and meta-regression analysis," *Human Reproduction Update* 23, no. 6 (2017), <https://www.ncbi.nlm.nih.gov/pubmed/28981654>.
- Rakesh Sharma, et al., "Lifestyle factors and reproductive health: taking control of your fertility," *Reproductive Biology and Endocrinology* 11, no. 66 (2013), <http://www.rbej.com/content/11/1/66>.
- XiaoZhi Lim, "Tainted water: the scientists tracing thousands of fluorinated chemicals in our environment," *Nature*, February 6, 2019, <https://www.nature.com/articles/d41586-019-00441-1>.
- U.S. Department for Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR), "Per- and Polyfluoroalkyl Substances (PFAS) and Your Health," accessed October 27, 2019, " <https://www.atsdr.cdc.gov/pfas/health-effects.html>.
- United Nations, Human Rights Council, *Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes*, September 2018, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G18/239/70/PDF/G1823970.pdf?OpenElement>.
- Gretta Goldenman, et al., *The Cost of Inaction: A socioeconomic analysis of environmental and health impacts linked to exposure to PFAS* (Copenhagen, Denmark: Nordic Council of Ministers, 2019), <http://norden.diva-portal.org/smash/get/diva2:1295959/FULLTEXT01.pdf>.
- Teresa M Attina, et al., "Exposure to endocrine-disrupting chemicals in the USA: a population-based disease burden and cost analysis," *The Lancet Diabetes & Endocrinology* 4, no. 12 (2016), [https://doi.org/10.1016/S2213-8587\(16\)30275-3](https://doi.org/10.1016/S2213-8587(16)30275-3).
- Philippe Grandjean and Martine Bellanger, "Calculation of the disease burden associated with environmental chemical exposures: application of toxicological information in health economic estimation," *Environmental Health* 16, no. 123 (2017), <https://ehjournal.biomedcentral.com/track/pdf/10.1186/s12940-017-0340-3>.
- Cheri Peele, et al., *The Chemical Footprint Project Survey 2018 Guidance Document*, (Somerville, MA: Clean Production Action, 2018), https://www.chemicalfootprint.org/assets/downloads/cfp_guidance_2018_20190102.pdf.
- For the complete list of CoHCs by Chemical Abstract Services Registry Number (CAS RN) go to: <https://www.chemicalfootprint.org/assess>.
- For list of SASB Organizational Alliance Members go to: <https://www.sasb.org/alliance-membership/organizational-members/>, accessed November 3, 2019. For list of largest asset managers, see: Carlo S. Moreolo, Investment & Pensions Europe, "Top 400 Asset Managers: AUM grows 1% amid market volatility," June 5, 2019 <https://www.ipe.com/reports/special-reports/top-400-asset-managers/top-400-asset-managers-aum-grows-1-amid-market-volatility/10031518.article>.
- All SASB standards can be downloaded at: <https://www.sasb.org/standards-overview/download-current-standards/>, accessed November 3, 2019.
- SASB, Multi-line and Specialty Retailers & Distributors Standard, <https://www.sasb.org/standards-overview/download-current-standards/>.
- Companies have the option to report on a subset of their company's products as a starting point. In the 2019 Survey, 32% of companies reported for a division or product portfolio and 68% reported for the whole company. In reporting this year's results, both data sets (for part of a company or for the whole company) are aggregated together.
- "Required" means suppliers are contractually obligated to meet the RSL and "preferred" means suppliers should meet the RSL but are not contractually obligated to do so.
- Added to question I1 in the 2019 Survey, asked whether responders have a manufacturing RSL (MRSL) for chemicals used in their manufacturing process that were not incorporated into the final product (e.g., cleaners, degreasers, etc.).
- The CFP CoHC list is built from the GreenScreen® for Safer Chemicals List Translator and includes the EU Candidate List of SVHCs as well as chemicals listed on California's Proposition 65 list (carcinogens and reproductive toxicants) and by other authoritative bodies in Europe, North America, and Asia. For details on GreenScreen List Translator lists of chemicals, see <https://www.greenscreenchemicals.org/learn/greenscreen-list-translator>.
- Note the total calculations for F2 in 2018 add up to 101% (63% + 28% +10%) due to rounding.
- Returning companies' first year data are excluded from D2 because the question changed significantly over time. Thus the first year data from returning companies is incomparable to the current question.
- By product type the 2019 Survey participants included: 9 companies selling only articles (hard goods); 6 companies selling only formulated products; and 14 companies selling both formulated products and articles.



The Chemical Footprint Project is the first-of-its-kind initiative to elevate "chemical footprinting" to the equivalent of carbon and water footprinting. Now companies can chart and report on their progress in reducing their use of chemicals of high concern (CoHCs). Signatories to the Chemical Footprint Project include investors with over \$2.7 trillion in assets under management and purchasers with over \$800 billion in procurement power. Together with these supporters we engage brands and retailers in reporting their overall chemicals management practices and progress to safer solutions through the annual CFP Survey.

Clean Production Action's mission is to design and deliver strategic solutions for green chemicals, sustainable materials, and environmentally preferable products. We are a solutions organization. Our tools, GreenScreen® for Safer Chemicals and Chemical Footprint Project, simplify the complexity of substituting chemicals of concern to human health and the environment with green chemistry solutions. Our collaborations, BizNGO and Investor Environmental Health Network, provide effective platforms for practitioners and thought leaders to work together in advancing chemicals, materials, products, and systems that are healthy for people and the planet. Together our tools and collaborations are transforming the toxic chemical economy into one that is healthy for people and the planet.

Authors:

Cheri Peele, MCP,
Senior Research Associate,
Clean Production Action

Mark S. Rossi, Ph.D.,
Executive Director,
Clean Production Action

Sally Edwards, Sc.D.,
Senior Research Associate,
Lowell Center for Sustainable
Production at the University of
Massachusetts Lowell

CFP Steering Committee:

Susan Baker,
Trillium Asset Management, LLC

Constantina Bichta, Ph.D.
Boston Common Asset Management

Ashley Hall,
Walmart

Ronald Hart, Ph.D.
Board of Directors, Clean Production
Action

Mary Ellen Leciejewski,
Dignity Health

Roger McFadden,
Canberra Corporation

Alexandra McPherson,
Investor Environmental Health
Network

Monica Nakielski,
Blue Cross Blue Shield of
Massachusetts

Sarah Vogel, Ph.D.
Environmental Defense Fund

chemicalfootprint.org

cfp the chemical
footprint project

Chemical Footprint Project
C/O Clean Production Action
1310 Broadway, Suite 101
Somerville, MA 02144
781-391-6743

moreinfo@chemicalfootprint.org