

The Guide to Safer Chemicals

Implementing the BizNGO Principles for Safer Chemicals

CONCLUSION

Steps for Downstream Users: How to Succeed in Chemicals Management

The *Guide* provides users with a series of benchmarks to safer chemicals, moving from Trailhead to Summit for each of the BizNGO Principles. With varying sectors and organizations taking different paths, *The Guide* aggregates their actions into a composite of steps to safer chemicals. The figure on page 56, From Trailhead to Summit, summarizes the trajectory of actions downstream users are implementing to advance safer chemicals. For each of the BizNGO Principles, *The Guide* articulates a deeper level of knowledge, commitment, action, and public engagement as organizations move from Trailhead to Base Camp to High Camp, and ultimately to Summit.

In the previous sections we detailed actions from Trailhead to Summit for each of the BizNGO Principles. In this section we start from Trailhead for all the BizNGO Principles, then move to Base Camp and High Camp for all the Principles, and then to key elements of success at the Summit.

Getting to Trailhead: Stepping Beyond Compliance

Trailhead is where downstream users start on the path beyond compliance to safer chemicals. As shown in the figure, From Trailhead to Summit, the journey starts with a few chemicals of high concern in products or processes:

- **Know: Action 1a.1**
Require suppliers to report some chemicals of high concern
- **Disclose: Action 1b.1**
Disclose absence or presence of some chemicals of high concern
- **Assess and Avoid: Action 2.1**
Implement a restricted substances list (RSL)

examples of commonly known chemicals of concern that all downstream users can identify.

Once chemicals of concern are identified, determining the scope of products impacted and how to prioritize actions is next. For example, when health care organizations targeted PVC and its

Finding chemicals of high concern in products is not the challenge for downstream users. The challenge is determining which ones to target first.

Chemicals of high concern are so prevalent in our global economy that it is common for a product have a chemical of high concern in it. Finding chemicals of high concern in products is not the challenge for downstream users. The challenge is determining which ones to target first.

A company can move beyond regulatory compliance and identify and target chemicals of high concern through a variety of pathways. Environmental organizations, government agencies, institutional consumers, and other companies are all good sources for identifying emerging and existing chemicals of high concern. For many years institutional and individual consumers have highlighted the problems with polyvinyl chloride (PVC), phthalates, brominated flame retardants, Bisphenol A (BPA), formaldehyde, and perfluorinated compounds. These are all

plasticizer di-2-ethylhexyl phthalate (DEHP) for reduction they confronted a vast array of products. PVC and DEHP are found in everything from medical devices to building products to packaging and within each of those categories there can be thousands of individual product types with PVC/DEHP in them. Kaiser Permanente and Dignity Health, for example, prioritized neonatal intensive care units where exposing babies to DEHP was a priority concern.

Organizationally, companies may start with the Trailhead Action for Continuous Improvement of 3.1—Establish organizational policy or guidelines. In some companies, however, it is easier to work below the radar screen of upper management and take action against a few chemicals of high concern, demonstrate success, then gain organizational support for what was

FROM TRAILHEAD TO SUMMIT

Overview of The Guide to Safer Chemicals

Summit

<p>Know</p> <p>All chemicals in supply chains & feedstock sources</p>	<p>Disclose</p> <p>All chemicals in supply chains & feedstock sources</p>	<p>Assess & Avoid</p> <p>Specify safer alternatives</p>	<p>Improve</p> <p>Report progress to BizNGO Principles using <i>The Guide</i> (or equivalent)</p>	<p>Support</p> <p>Integrate BizNGO Principles into legislation & speak to media</p>
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High Camp

<p>Know</p> <p>All chemicals in products</p>	<p>Disclose</p> <p>All chemicals in products</p>	<p>Assess & Avoid</p> <p>Select & implement safer alternatives to chemicals of high concern</p>	<p>Improve</p> <p>Implement systems for managing data & identifying safer alternatives</p>	<p>Support</p> <p>Collaborate with NGOs & integrate BizNGO Principles into regulations</p>
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Base Camp

<p>Know</p> <p>All chemicals of high concern in products</p>	<p>Disclose</p> <p>Most chemicals in products</p>	<p>Assess & Avoid</p> <p>Identify all chemicals of high concern</p>	<p>Improve</p> <p>Endorse BizNGO Principles for Safer Chemicals</p>	<p>Support</p> <p>Integrate BizNGO Principles into voluntary initiatives</p>
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Trailhead

<p>Know</p> <p>Some chemicals of high concern</p>	<p>Disclose</p> <p>Presence/absence of some chemicals of high concern</p>	<p>Assess & Avoid</p> <p>Create and implement restricted substances list (RSL)</p>	<p>Improve</p> <p>Establish organizational policy</p>	<p>Support</p> <p>Speak publicly on implementation</p>
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already achieved and approval for an organizational chemicals policy. In other companies, high level policies are the first step in driving action across the organization.

Taking these initial actions public is typically done through presentations at conferences and meetings as outlined in Trailhead Action 4.1—Speak publicly on implementation. Telling stories of successes as well as of challenges and how they were overcome or remain is critical to both advancing safer alternatives as well as creating a community of fellow practitioners.

Getting to Base Camp and High Camp: Creating Systems for Change

Replicable and scalable systems are essential to moving beyond a handful of chemicals of high concern. Systems for collecting and managing data, identifying chemicals of high concern, evaluating alternatives, and selecting safer alternatives are needed to reach Base Camp and High Camp, including:

- **Know: Actions 1a.2 and 1a.5**
Require suppliers to report all chemicals of high concern and all chemicals in products
- **Disclose: Actions 1b.2 and 1b.3**
Disclose most to all chemicals in products
- **Assess and Avoid: Action 2.2**
Identify all chemicals of high concern in products or processes
- **Assess and Avoid: Action 2.3**
Evaluate alternatives to chemicals of high concern
- **Assess and Avoid: Action 2.4**
Select and implement safer alternatives

Without systems and procedures organizations cannot scale their work, cannot manage their supply chains, and cannot systematically implement their programs. These procedures can be developed internally, they can reference external methods and tools such as the

BizNGO Chemical Alternatives Assessment Protocol, and GreenScreen for Safer Chemicals, and/or can rely upon third party certifications such as Cradle to Cradle Certified.

An example of a linked set of systems is:

1. **Know chemical ingredients in products.** Examples include the Health Product Declaration form and Seagate's system for collecting and managing data in products.
2. **Identify chemicals of high concern.** Examples include ChemSec's SIN List and GreenScreen Benchmark 1 Chemicals (as determined using the List Translator).
3. **Employ a framework for evaluating alternatives.** Examples are HP's Integrated Alternatives Assessment Framework and BizNGO's Chemical Alternatives Assessment Protocol.
4. **Assess hazards of alternatives.** Examples are the GreenScreen for Safer Chemicals and Cradle to Cradle Certified.

The business case must be made for committing organizational resources to create the procedures and systems necessary for success. Champions are able to articulate the value of safer chemicals implementation, especially in financial terms.

The questions purchasers at the far end of the supply chain need to ask suppliers are, what are your systems for:

- knowing chemicals in products,
- identifying chemicals of high concern,
- evaluating alternatives, and
- selecting safer alternatives.

A short version of these questions would be how do you score on the BizNGO benchmarks.

The business case must be made for committing organizational resources

to create the procedures and systems necessary for success. Champions are able to articulate the value of safer chemicals implementation, especially in financial terms. Business benefits include: reduced reputation risk, increased sales and market share, differentiated products, improved quality, enhanced brand image, loyal employees, and increased customer satisfaction. Somewhat ironically, the best business case for taking action can be prompted by protesters camped in front of corporate headquarters or hanging from corporate buildings with slogans protesting the use of toxic chemicals in products. Such actions highlighting toxic chemicals in the products and supply chains of brands create pressure for action to alleviate brand vulnerability.

The focus on external engagement in Principle #4 increases as organizations move from Trailhead to Base Camp and High Camp. Here company staff

gain some flexibility to express their internal leadership in transforming products and purchasing specifications to a wider public. Champions in these organizations recognize that organizational success depends on a deeper movement to safer chemicals in supply chains, competitive companies, trade associations, and the broader public as represented by governments and environmental advocacy organizations. Company champions engage various public communities to promote a wide scale and popular movement to safer chemicals. They do this, for example, by advocating for the Principles for

Safer Chemicals in voluntary initiatives and government regulations while also directly collaborating with NGOs.

Moving from Base Camp to High Camp requires organizational support to advance beyond chemicals in products and up into supply chains and feedstocks. Procedures established in Base Camp now need staffing to implement.

Getting to the Summits: Setting the Compass to Inherently Safer Alternatives

Travelers to the Summits of *The Guide* have set their sights on specifying inherently safer chemicals, materials, and feedstocks across all of their products and supply chains. In looking across companies that are able to reach the summit for some principles or come close to the summit share three common elements of success, namely they have the capacity, will, and systems in place to ensure long term adoption and implementation.

CAPACITY MATTERS

Effectively managing chemicals in products and across supply chains requires technical capacity or staff. Organizations at or near the summit have:

- Deep knowledge and understanding of chemicals in products and supply chains, as well as the sources of feedstocks.
- Technical capacity and systems for managing data, evaluating alternatives, and selecting and implementing safer alternatives.

Many downstream companies do not consider chemicals management an important component of their operations and indeed some can be characterized as “chemophobic” because they avoid the whole issue of managing chemicals in their products. Alternatively they may hope that external organizations such as third parties will

solve the problems of managing chemicals in products and supply chains for them. However, while third parties and other external resources can be effective, they still require an in-house manager to ensure that internal goals and priorities are being met. Ultimately third parties do not absolve companies of their responsibility for chemicals in their products and in their supply chains.

An effective chemicals management program requires organizational motivation and drive to move beyond legal compliance and maintain that trajectory over time. This comes in many forms, including organizational mission, internal champions, and implementation of a chemicals policy or guideline.

An alternative route for leveraging technical resources and capacity is through the engagement of non-profit organizations, trade associations, or consultants. For example, many organizations in health care are effectively leveraging non-profit organizations—Practice Greenhealth, Health Care Without Harm, and Healthy Hospitals Initiative—to support, help develop and implement their safer chemical programs. Manufacturers of outdoor products are leveraging their trade association, the Outdoor Industry Association (OIA), to create a comprehensive chemical management framework. OIA is leading a multi-year, multi-stakeholder technical group to create this framework.

WILL IS ESSENTIAL

An effective chemicals management program requires organizational motivation and drive to move beyond legal compliance and maintain that trajectory over time. This comes in many forms, including: organizational mission, internal champions, and implementation of a chemicals policy or guideline. Some of the most successful organiza-

tions on the path to safer chemicals have an internal mission to promote safer chemicals and values consistent with addressing chemicals of concern to human health or the environment. Non-profit health care organizations and mission-driven for-profit companies (for example, Seventh Generation and Method) are among the leaders in safer chemical implementation. They allocate internal resources and engage

externally to realize their company’s core values.

A company’s chemical management policy and guideline will reveal the extent to which its senior management expresses their will to advance safer chemicals. Organizations at or near the Summit are implementing policies that support the BizNGO Principles, including commitments to transparency and engaging in external policies and initiatives. Such chemical management policies and guidelines should be foundational, but our initial research reveals that in reality senior management, including sustainability officers, invest little if any time into the chemicals management of their products and supply chains. This may be because traditionally chemical impacts were considered to be important only on the factory floor.

A clear driver within many leading organizations is the presence of internal champions. Champions have a personal passion for the issue and possess technical or organizing skills that enable them to demonstrate the

value of safer chemicals implementation. Internal champions gain organizational support for this work and share many of the characteristics of “tempered radicals:”

[I]ndividuals who identify with and are committed to their organizations and also to a cause, community or ideology that is fundamentally different from, and possibly at odds with, the dominant culture of their organization. Their radicalism stimulates them to challenge the status quo. Their temperedness reflects the way they have been toughened by challenges, angered by what they see as injustices or ineffectiveness, and inclined to seek moderation in their interactions with members closer to the centre of organizational values and orientations.¹

Organizations must internalize the outcomes of a champion’s work to implement safer chemicals otherwise these impacts will be lost when the champion leaves the organization.

SYSTEMS ARE FUNDAMENTAL

Successful implementation over the long term requires the development and implementation of systems. Systematic procedures are needed to collect and evaluate chemicals and their alternatives, validate data, select and implement safer alternatives, and specify green chemistry solutions. These procedures can be internal, outsourced, or a combination of the two. Leaders in safer chemicals implementation develop procedures that can be implemented over the long term and that are organizationally integrated as part of long term planning. Examples of organizations that are leaders in systems or procedures for safer chemicals include:

- Nike and their criteria for evaluating materials and advancing green chemistry specifications.
- Seagate and their systems for collecting, managing, and validating chemical ingredient data.
- Hewlett-Packard and their procedures for conducting alternatives assessments that include identifying chemicals of high concern, and evaluating and selecting safer alternatives.

The outdoor industry and apparel and footwear sectors, are taking a leadership role on a sector-wide basis in defining a comprehensive framework that builds from earlier iterations of *The Guide*.

The Guide is a Living Resource: Tell Us of Your Journey

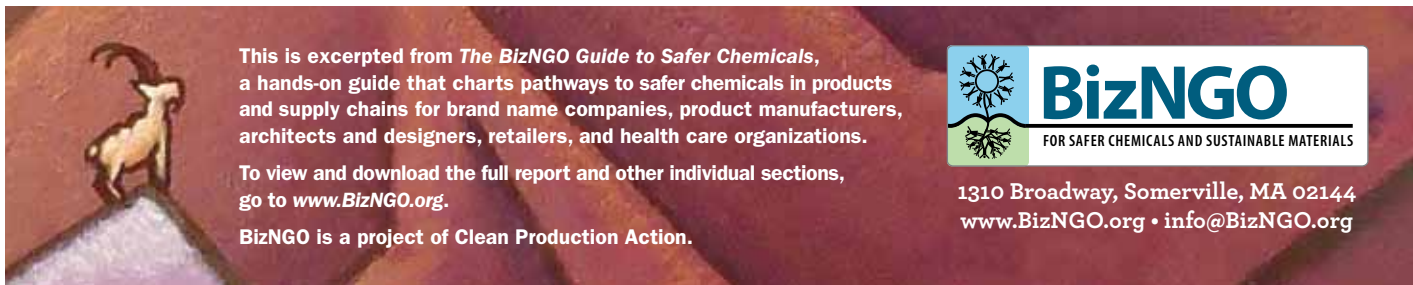
Significant insights we learned over the course of writing *The Guide* are:

1. **Stepping beyond Trailhead requires systems.** Organizations moving beyond Trailhead have systems in place for managing data, identifying chemicals of high concern, communicating with suppliers, and evaluating and selecting alternatives.
2. **Having an agreed upon list of chemicals of high concern accelerates the rapid screening of chemicals.** The ChemSec SIN List and GreenScreen Benchmark 1 chemicals are readily available solutions. And the GreenScreen List Translator is the quickest route to rapidly identifying GreenScreen Benchmark 1 chemicals (although we must note the conflict of interest of the authors, one of whom is a co-author of the GreenScreen).

3. **Leveraging the primacy of hazard facilitates priority setting, communicating with suppliers, and selecting inherently safer alternatives.** The BizNGO Chemical Alternatives Assessment Protocol and the GreenScreen for Safer Chemicals are both well-suited for supporting hazard-based decision making (although note again the conflict of interest of the authors).
4. **Raising the collective voice of downstream users is critical for growing the broader global movement to safer alternatives to chemicals of high concern to human health or the environment.** Ultimately corporate leaders in safer chemicals will only succeed if their efforts are mainstreamed globally. This will require the insertion of know, disclose, and assess and avoid hazards into public policies, industry standards, ecolabels, certifications, and voluntary sustainability initiatives.

The Guide is a living resource and will evolve over time as we learn more about the challenges and opportunities that organizations face in implementing these benchmarks. If you are a downstream user of chemicals and want to join us on the journey to safer chemicals, please contact us at TheGuide@bizngo.org. We look forward to hearing your feedback and experiences.

1 D.E. Meyerson and M.A. Scully, 1995, “Tempered Radicalism and the Politics of Ambivalence and Change,” *Organization Science*, v.6n.5.



This is excerpted from *The BizNGO Guide to Safer Chemicals*, a hands-on guide that charts pathways to safer chemicals in products and supply chains for brand name companies, product manufacturers, architects and designers, retailers, and health care organizations.

To view and download the full report and other individual sections, go to www.BizNGO.org.

BizNGO is a project of Clean Production Action.



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