

III. IMPACT AREAS

CHEMISTRY

We are committed to making our products in ways that protect workers, consumers and the environment – all while delivering the high quality and performance for which we are known. One aspect of this commitment is to eliminate, reduce and responsibly manage hazardous chemicals in our supply chain.

OUR APPROACH

Our material vendors use chemicals in dyeing and other processes, and our contract manufacturing facilities use them in making footwear, apparel and equipment. We have programs in place that restrict the use of certain chemicals, promote the use of “green chemistry,” encourage better choices in the design of products, and empower and encourage our vendors and contract factories to identify toxics in their processes and find alternatives.

RESTRICTED SUBSTANCES

Our Restricted Substance List (RSL) – publicly available since 2001 – details chemical compounds that cannot be present in any finished products sold by NIKE, Inc. The RSL includes substances that are banned by law, as well as chemicals we’ve restricted voluntarily. To ensure compliance, we incorporate the RSL into agreements with all of our contract manufacturers. We then monitor compliance through a risk-based testing program that employs analysis by third-party laboratories.

We also have RSLs specific to manufacturing (the MRSL) and packaging (the PRSL). The MRSL identifies substances that cannot intentionally be used in the manufacture of our products. The PRSL, publicly available since 2003, restricts certain chemicals and materials from use in packaging.

GREEN CHEMISTRY

The RSLs tell suppliers what they cannot use. At the same time, we want to encourage our material vendors and contract manufacturers to use and develop the *right* kinds of chemistries – i.e., more sustainable options. So, in 2010, we established our Sustainable Chemistry Guidance (SCG). The SCG is a platform for highlighting preferred chemistries, defining better chemistry and empowering our supply chain partners to more closely align with Nike’s sustainability goals around fewer toxics, less water use and less energy use.

The SCG includes a list of “positive” or preferred chemistries and is a resource for vendors and contract factories as they select alternative chemistries for use. We have made it clear to our vendors and contract factories that we will include in the SCG proven, open and accessible innovations that they develop. The goal is to provide contract factories with a resource for helping to choose positive chemistries and to provide an incentive to chemical

vendors to research and develop such innovations. The positive chemistries list is short now, but we are hopeful it will expand aggressively.



Both the RSLs and Green Chemistry are part of our broader guidance, which is designed to drive innovation in our supply chain and is inspired by the widely recognized “12 principles of green chemistry.”¹ Through this program, we assess chemical hazards based on a benchmarking tool called the Green Screen for Safer Chemicals² (version 1.0). We also evaluate exposure potential in order to prioritize toxics for elimination and/or restriction.

Our material vendors can participate in the Green Chemistry Program in several ways. As a first step, they can make a formal commitment to self-evaluate the chemicals they use. Vendors can also engage in a more advanced effort by submitting data that would validate their material-specific green chemistry innovations. The Nike Material Sustainability Index (MSI) – the tool for rating the sustainability of materials and the material vendors that produce them (discussed in the Materials section) – rewards material vendors for taking part in the Green Chemistry Program. Using the Nike MSI, our material vendors can engage in a measureable way in green chemistry: The deeper the engagement, the greater the reward through the Nike MSI.

BETTER CHOICES IN DESIGN

The Nike MSI does more than rate our material vendors, however. It also scores materials according to (among other things) the chemicals required to make or process them. These scores enable Nike product-creation teams to make more sustainable, less-toxic choices during product design.

WORKING WITH CONTRACT MANUFACTURERS

Our efforts to responsibly manage, reduce and ultimately eliminate toxic chemicals in the contract supply chain also include work conducted by our Sustainable Manufacturing & Sourcing (SM&S) team with manufacturers. The

SM&S team provides hands-on consulting to contract manufacturers to drive the elimination of toxics through substitution, improved production practices and process modification.

The team also provides incentives for action through implementation of the Nike Sourcing & Manufacturing Sustainability Index (SMSI). Our contracted finished-goods factories have significant influence through their purchasing power and material vendor choices – decisions that make a difference in the toxics footprint of Nike’s extended supply chain. By defining what “good” looks like, the Nike SMSI – described in detail in the Manufacturing section – serves as a powerful incentive for contract factories to reduce their own use of toxics, as well as that of their sub-vendors.

PROGRESS AND PERFORMANCE

We have significantly reduced the use of several kinds of toxic chemicals in our value chain in recent years.

As discussed in the Materials section, for example, we have developed two types of environmentally preferred rubber. Version 1 targeted the most toxic chemicals compared to a typical rubber formulation. We shared the patent for this version with our industry via GreenXchange. Version 2 built on the advances in Version 1 by reducing total zinc content by 80 percent and leachable zinc content by more than 90 percent. In FY11, NIKE Brand footwear designs used environmentally preferred rubber in 80 percent of shoe pairs, up from 3 percent in 2004.

We have also replaced solvent-based chemistry in all NIKE Brand footwear with water-based chemistry, which has reduced the use of petroleum-derived solvents in our shoe designs by 96 percent per pair since 1995.

Further, we have significantly reduced hazardous-waste generation in all NIKE Brand footwear through materials substitution, operational improvements and process modification. As a result, hazardous waste generated per pair of shoes is estimated to be down by more than one-third since FY05.

EXPANDING OUR IMPACT

Industry collaboration is an important part of our efforts to reduce toxics, because many of our material vendors and manufacturing facilities are also part of the supply chains of other brands. We have worked within a variety of industry associations to discuss chemicals management and share insights and best practices. For example, we are members of the Apparel & Footwear International RSL Management Group, the Sustainable Apparel Coalition and the Outdoor Industry Association’s Chemicals Management Working Group. We also belong to the Green Chemistry and Commerce Council and the American Chemical Society’s Green Chemistry Institute.

LOOKING AHEAD

TO DATE, 373 NIKE BRAND FOOTWEAR & APPAREL MATERIAL VENDORS HAVE PROVIDED A SIGNED COMMITMENT TO THE NIKE GREEN CHEMISTRY PROGRAM.



We are now firmly focused on meeting our commitment to zero discharge of hazardous chemicals* by 2020. With our RSLs and Green Chemistry Program – and incentives embedded in the Nike MSI and Nike SMSI – we know we have the right tools in place to help us get there. At the same time, we know it will require continued collaboration by multiple players in the industry and the cooperation of our material vendors and contract manufacturers to drive progress forward and meet the goal.

RESOURCES

- ▶ [Nike, Inc Chemistry](#)
- ▶ [GC3 Green Chemistry & Commerce Council](#)
- ▶ [Sustainable Apparel Coalition](#)
- ▶ [Apparel & Footwear International RSL Management Group](#)

NOTES

1 - See www.epa.gov/sciencematters/june2011/principles.htm. The 12 principles include, for instance, the use of renewable feedstocks and the design of chemicals so that they break down into innocuous components in the environment.

2 - See www.cleanproduction.org/library/cpa-fact%20grscreen_Jan09_final.pdf.

* Hazardous chemicals are those that show intrinsically hazardous properties (persistent, bio-accumulative and toxic; very persistent and very bio-accumulative; carcinogenic, mutagenic and toxic for reproduction; endocrine disruptors; or equivalent concern), not just those that have been regulated or restricted in other regions.

[Previous Chapter](#)

[Top](#)

[Next Chapter](#)