



2018

CHEMISTRY PLAYBOOK

& RESTRICTED SUBSTANCES LIST



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INTRODUCTION

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CHEMISTRY IN OUR SUPPLY CHAIN

ABOUT THE CHEMISTRY PLAYBOOK

FROM THE EARLY EFFORTS OF BILL BOWERMAN

NIKE, Inc.'s original innovator, to our ongoing obsession with creating exceptional product, the effective use of chemistry has elevated Nike product performance and shaped manufacturing on a global scale.

This legacy deeply influences our perspective on the positive role chemistry plays in pursuit of innovation.

While the essential role of chemistry within our business is clear, we also recognize that chemistry must be well managed to maximize its value while reducing associated risks. To accomplish this, we have developed a unified operational strategy that integrates our approach to regulatory compliance with proactive efforts to scale better chemistry globally while reducing the impact of our business.

We created the Nike Chemistry Playbook to communicate our sustainable chemistry strategy and to clearly define our expectations for suppliers.

Given the scale and complexity of our supply chain, and with the understanding that chemistry touches every choice we make, it's important that all suppliers understand and comply with Nike's specific requirements.

The Playbook also reinforces the connection between chemistry and the Nike Code of Conduct (COC). The COC, updated in 2017, outlines our core philosophy and our expectation that chemicals are managed properly within our supply chain.

From the Nike COC:

SUPPLIER DEMONSTRATES A CONSISTENT AND COMPETENT APPROACH TO RESTRICTED SUBSTANCE MANAGEMENT, SUPPORTED BY AN EFFECTIVE AND LEGALLY COMPLIANT CHEMICALS MANAGEMENT PROGRAM. THE PROGRAM CLEARLY IDENTIFIES AND MITIGATES CHEMICAL RISKS TO WORKERS, THE ENVIRONMENT AND CONSUMERS BY FACILITATING SAFE HANDLING, STORAGE, USE, PROCUREMENT AND DISPOSAL OF CHEMICALS.

By integrating Nike COC requirements for supplier facilities, requirements from the Nike Restricted Substances List (Nike RSL) for material and product compliance, and initiatives to scale best-in-class sustainable chemistry across the industry, the Playbook is a critical tool for helping suppliers understand how Nike defines chemistry and what they must do to demonstrate they're meeting our expectations.

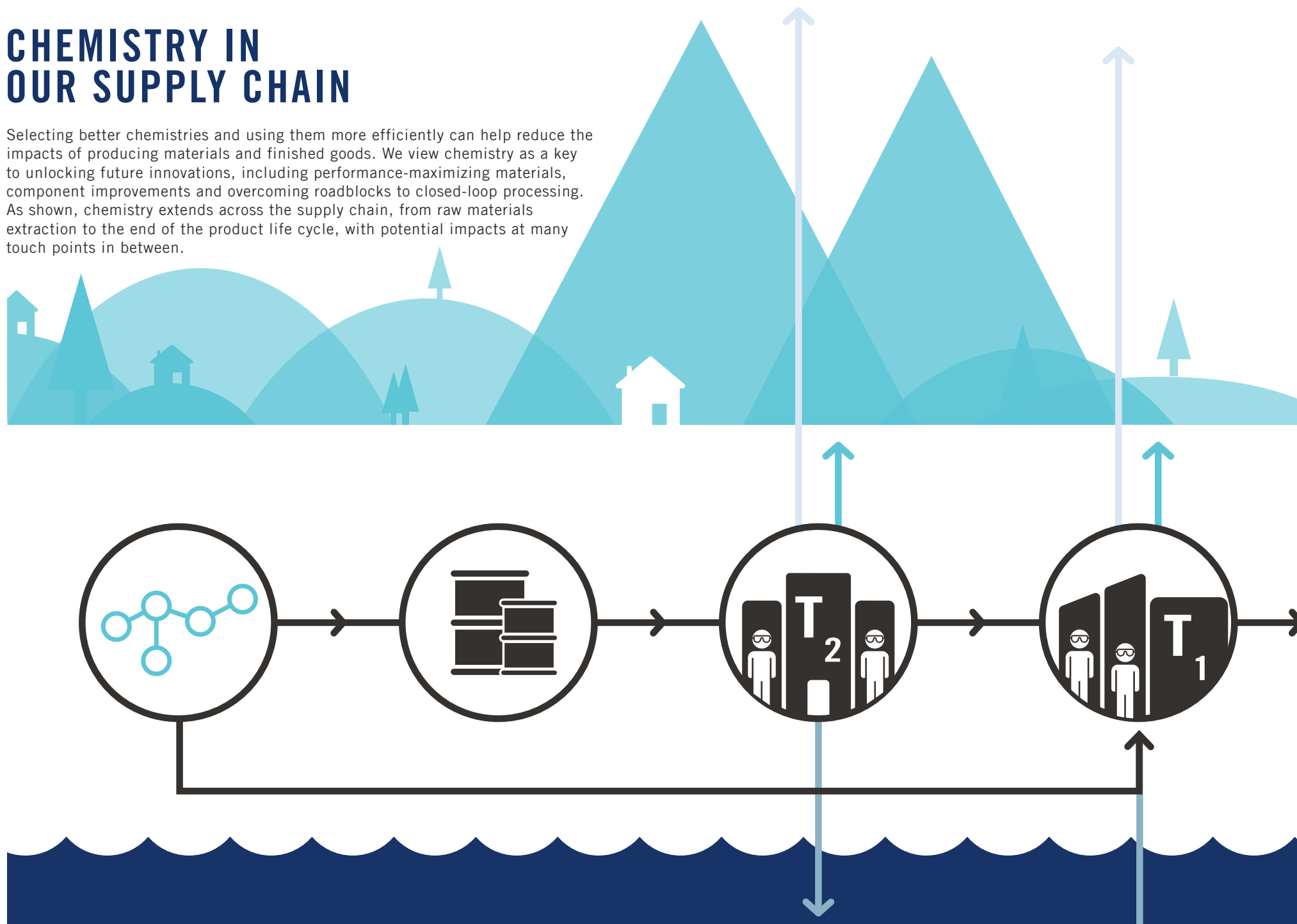
RUBBER TO THE ROAD

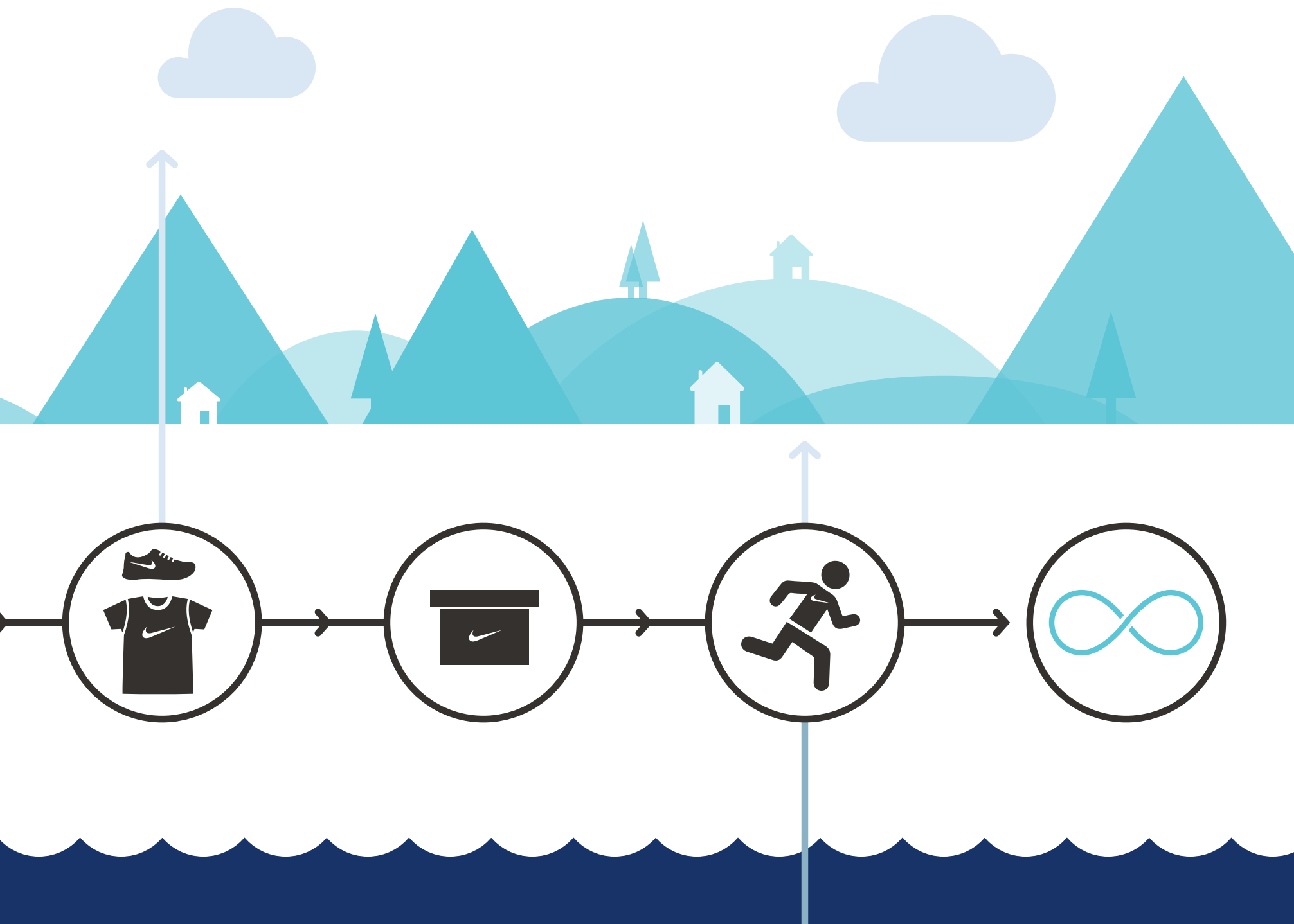
The Chemistry Playbook highlights Nike's key areas of focus:

- Our "moonshot" – doubling our business while halving our impact (see page 9)
- Our approach to screening new chemistries to reduce risk to workers, consumers and the environment
- The importance of controlling chemical inputs in manufacturing facilities
- Effective chemicals management within facilities
- Output management including wastewater and other emissions
- Material and product compliance with the Nike RSL

CHEMISTRY IN OUR SUPPLY CHAIN

Selecting better chemistries and using them more efficiently can help reduce the impacts of producing materials and finished goods. We view chemistry as a key to unlocking future innovations, including performance-maximizing materials, component improvements and overcoming roadblocks to closed-loop processing. As shown, chemistry extends across the supply chain, from raw materials extraction to the end of the product life cycle, with potential impacts at many touch points in between.





A person is captured in mid-air, performing a 'moonshot' jump. They are wearing a white long-sleeved jacket, black athletic pants with a blue stripe, and grey and teal sneakers. The background is a bright blue sky with scattered white clouds. The person's arms are bent, and their legs are spread wide in a dynamic pose.

NIKE'S MOONSHOT

DOUBLE THE BUSINESS,
HALF THE IMPACT

“OUR MOONSHOT CHALLENGE IS A BOLD AMBITION THAT’S GOING TO TAKE INNOVATION ON A SCALE WE’VE NEVER SEEN BEFORE.”

— HANNAH JONES, NIKE’S CHIEF SUSTAINABILITY OFFICER

NIKE’S MOONSHOT

In 2016, NIKE, Inc. publicly announced a moonshot: to double our business while halving our environmental impacts. We defined these impacts as carbon emissions, freshwater withdrawals and the use of controversial chemicals.

This aspiration is incredibly bold but achievable. It will require unprecedented levels of innovation and collaboration – especially in the field of chemistry.

We estimate more than 3,000 chemicals are used in the footwear and apparel industry, from raw materials to finished goods.

Nike is identifying which of these chemicals are controversial. We define controversial chemicals as those rated Hazard Category 1 (or Green Screen® Benchmark 1), those with high skin-sensitization potential and those Nike has determined are priority.

In many cases, however, the toxicology data required to inform a hazard-ranking approach are not available. We are working to overcome these data gaps and to identify and prioritize which chemicals to reduce or phase out – and then replacing them with innovative solutions that don’t compromise product performance. When we fully scale solutions already in our project pipeline, we estimate a 25% reduction in our use of controversial chemistries.

Achieving our moonshot requires a further 25% reduction in the use of controversial chemicals. We anticipate success through robust, data-driven innovations and strong industry collaborations.

OUR CHEMISTRY FOUNDATION

Over the past several years, Nike has implemented a unified operational strategy across our business to drive the use of better chemistries to create superior products.

The foundation of this strategy is 100% compliance with the Nike RSL and, by 2020, 100% compliance with the Zero Discharge of Hazardous Chemicals Manufacturing Restricted Substances List (ZDHC MRSL). These compliance requirements are firmly embedded in manufacturing processes within our contracted supply chain. This foundation paves the way for Nike’s continued sustainability journey, and underpins our vision for a better chemistry future.

ACHIEVING NIKE’S MOONSHOT

- 1 Improve the quality and scope of toxicology data to enable better decision making
- 2 Prevent the inflow of controversial chemicals in materials through a well-defined chemical-assessment process
- 3 Phase out or reduce controversial chemistries in existing materials
- 4 Increase the use of lower-hazard chemicals across the industry

THE CHEMICAL UNIVERSE

100,000 CHEMICALS IN COMMERCIAL USE

With more than 100 million known chemical substances, it's estimated that approximately 100,000 are in commercial use.

When Nike innovates new materials and methods of make, this larger chemical universe may provide substances that are more sustainable and higher performing than those currently in use.

Conversely, there are hazardous substances to avoid in this chemical universe. In our effort to advance better, more sustainable chemistry, Nike uses a chemical assessment approach to review incoming chemistries against nearly 20 toxicological endpoints.

Many substances lack complete toxicological data to fully inform end users on hazards. To achieve Nike's vision of a better chemistry future, we need a wider scope of scientific data and better tools to view and share toxicological information.



3,000+ CHEMICALS IN THE NIKE SUPPLY CHAIN

In Nike's supply chain, there are more than 3,000 chemicals potentially in use in a wide number of formulations.

350 CHEMICALS ON THE RSL

The Nike RSL restricts approximately 350 substances that have been regulated or voluntarily phased out of our manufacturing processes. These substances are tightly controlled to minimize their use in the supply chain.

CHEMICAL HAZARDS

Only a portion of the more than 3,000 chemicals estimated to be in use are substances of concern. While the Nike RSL tightly controls the most hazardous, opportunities exist to find better chemistry alternatives.



NIKE CHEMICAL PRIORITIZATION PROCESS

In 2014, Nike began investigating the chemicals potentially used in our supply chain to gain an in-depth understanding of associated risks.

We evaluated each chemical ingredient used in product formulations based on its hazard profile, potential for governmental regulation, where in the supply chain the chemical is most commonly used, its presence on key chemical lists and the quantity used.

This evaluation process enabled us to prioritize those chemicals that will be phased out of manufacturing processes in a sequence that is relevant and scientifically appropriate. All chemicals identified for phase-out contribute to achieving Nike's moonshot.

The first chemicals scheduled for phased elimination are Perfluorinated and Polyfluorinated Chemicals (PFCs), used in water- and oil-repellent finishes.

The second phase-out is Dimethylformamide (DMF), used in a variety of cleaning processes, but typically associated with synthetic leather production, where it's used as a solvent and foaming agent.

The third chemical Nike is committed to eliminating from our supply chain is Formaldehyde. Nike, like most brands, has restricted the presence of Formaldehyde in finished goods for almost a decade. Long-term vigilance and continued effort are required due to its widespread use and wide-ranging functionality in a supply base shared by many brands. As we define a path to complete elimination within our supply chain, Nike continues to work closely with chemical manufacturers, suppliers and industry coalition groups to facilitate industry-wide progress.

INNOVATION IN ACTION

To achieve our moonshot, we must realize improvements through a variety of means: better chemistry, innovative processing and new methods of make.

- Improving material efficiency reduces the volume of chemicals required to create materials, illustrated by our Flyknit innovations.
- Changes in material processing, such as waterless dyeing, reduce required chemistry as well as wastewater effluent volumes, positively impacting waste streams.
- Our Odor 3.0 approach has turned the issue of odor in synthetic materials upside down by avoiding the use of potentially hazardous antimicrobial technologies.

Find examples of Nike's innovation mindset on the following pages.

1

ELIMINATING PERFLUORINATED & POLYFLUORINATED CHEMICALS

Building on our 2015 commitment to phase out the use of C8-based PFCs, Nike is expanding our commitment to eliminate all PFC-based finishes from our products by 2021 – while still enabling the aesthetics and functionality customers expect.

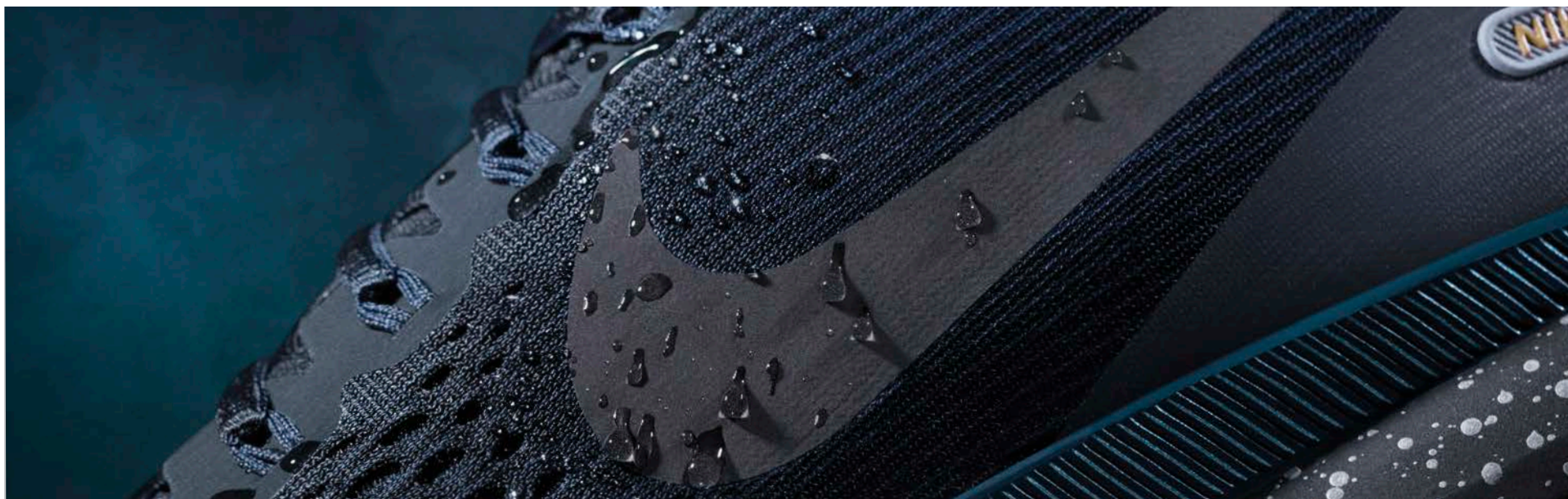
A complete phase-out requires deep cross-functional collaboration, with experts from Nike materials,

manufacturing and quality assurance teams, as well as chemical suppliers.

Treatment for water-repellency may be necessary depending on how materials are used. By performing an extensive review of possible alternatives, we learned that each material category could respond differently to an applied chemistry; a simple replacement was rarely, if ever, available.

All PFC alternatives undergo our chemical assessment process to ensure that better chemistry is substituted into the supply chain. Achieving desired performance while scaling better chemistries has required a detailed understanding of each solution, its interaction with different material categories and its potential impact.

**NIKE IS WORKING
TO COMPLETELY
PHASE OUT PFC-
BASED FINISHES
BY 2021.**



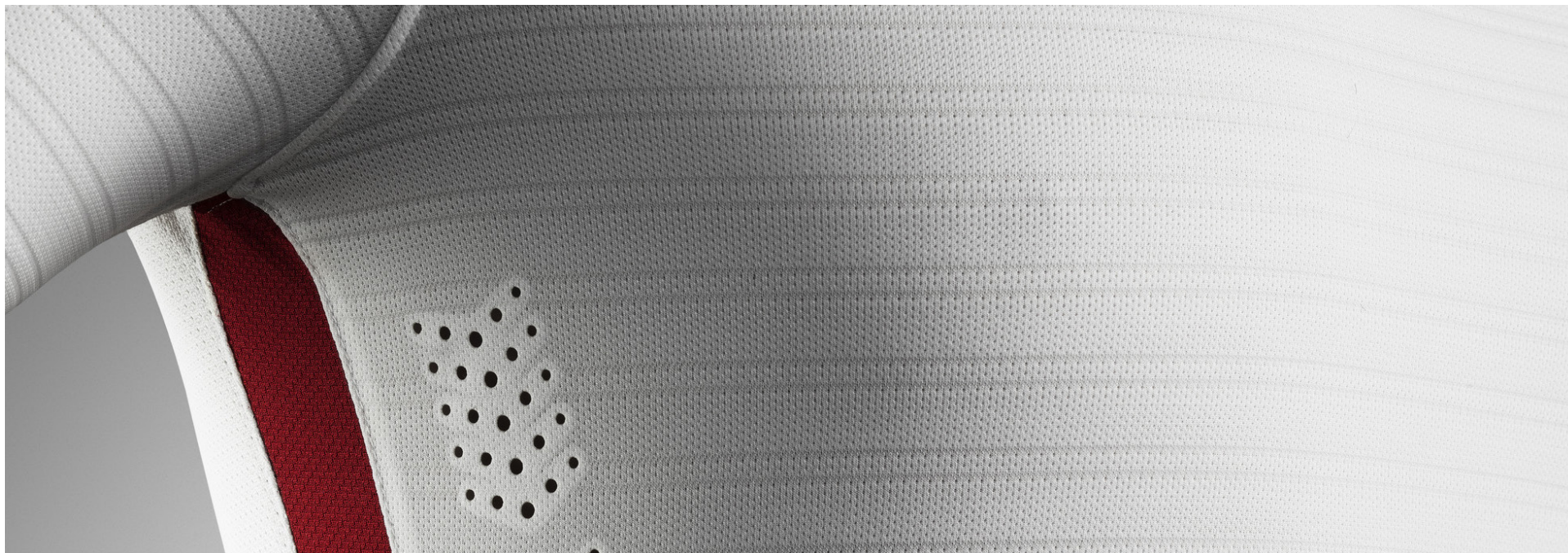
2

ODOR MANAGEMENT

At Nike, serving athletes and creating the future of sport drives us to innovate – to find effective solutions for demanding challenges by applying creativity and technical knowledge in ways that advance the performance of materials and products. Importantly, sustainability is embedded in our approach to innovation.

Innovation teams at Nike looked at odor management from a new perspective, focusing on odor molecules rather than the microbes that produce them. This shift in thinking enabled the teams to deliver a finish to reduce odors, eliminating the risks of using controversial antimicrobial technologies.

This approach keeps potentially harmful chemistries out of the supply chain and wastewater, and reduces impacts across the product life cycle.



3

WATERLESS DYEING

Conventional dyeing and finishing techniques require the use of hot water and auxiliary chemicals to attach dyes to the fabric and to remove excess dyes before production.

These conventional techniques require an average of 150 liters of freshwater per kilogram of fabric.

Industry analysts estimate that 39 million tons of polyester were dyed and finished in 2015.

With waterless dyeing, we avoid the energy input required to heat large volumes of water and eliminate the auxiliary chemistry as well.

This type of innovation supports our ambitions for reducing water, energy and chemistry inputs.



4

FLYKNIT

Our biggest impacts to the environment occur in the growing, processing and finishing of materials. As we get smarter about the materials we choose – and the ways in which we use them – we reduce our environmental impacts, set a new bar for strong product performance and drive growth for our business.

Nike Flyknit disrupted the traditional method of making shoes and enabled our designers to microengineer every stitch of a footwear upper, reducing waste by about 60% on average compared to traditional cut-and-sew footwear.

Our Nike Free RN Flyknit shoe generates 83% less waste than a traditional running shoe.

By making product in a way that uses less material, we avoid chemical use as well as use of other resources such as water, energy and labor.

By designing out the waste, we avoid increasing our chemical and environmental footprints. Every material-efficiency improvement helps enable our moonshot.







GAMEPLAN

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CHEMICALS MANAGEMENT

OUTPUT MANAGEMENT

INTRODUCTION TO THE GAMEPLAN

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We expect our supply chain to use industry best practices to proactively manage chemicals, manufacturing high-performance products in a safe manner while minimizing the impact Nike's business has on the environment.

To achieve consistency in our compliance efforts, Nike expects all suppliers to understand our requirements and to elevate their performance beyond the minimum. We will not achieve our moonshot without systemic changes to chemicals management within our supply chain.

OUR COMMITMENT

To reinforce Nike's COC and support adoption of more sustainable chemistry, we made several public commitments to 2020 targets:

- Source 100% from factories that meet our definition of sustainable (rated Bronze or better)
- Meet zero discharge of hazardous chemicals targets
- 100% compliance with the Nike RSL

- 100% compliance with the ZDHC MRSL
- Achieve better chemical input management by scaling more sustainable chemistries

EXPECTATIONS

1 COMPLIANCE WITH THE NIKE CODE OF CONDUCT

Our updated COC requires all suppliers engaged in business with Nike to manage chemicals properly.

Nike's Code Leadership Standards (CLSs) communicate how suppliers should implement the COC and articulate how we measure factories' compliance efforts.

Using criteria from the CLSs, we use the Nike Compliance Assessment Tool (NCAT) to help us evaluate whether finished-goods factories are managing chemicals properly and proactively. Performance against CLSs influence overall factory compliance ratings.

We also expect material vendors to proactively meet the requirements of Nike's COC. We use the Sustainable Apparel Coalition's Higg Facilities Environment Module (FEM) to validate compliance.

2 COMPLIANCE WITH THE NIKE RSL & ZDHC MRSL

Through supply agreements, suppliers are contractually obligated to provide Nike with goods that meet Nike RSL requirements. All materials used to make our products must be tested in accordance with the Nike RSL. Materials that fail RSL testing are prohibited from use in finished goods. Finished-good suppliers that underperform against the Nike RSL will see an impact to their Manufacturing Index (MI) rating.

Managing restricted substances includes controlling the chemical formulations that enter facilities. To this end, Nike adopted the ZDHC MRSL and is committed to using ZDHC MRSL-compliant chemistry throughout our supply chain. Suppliers must demonstrate that chemical formulations in their inventories comply with the ZDHC MRSL.

For more information about these standards, refer to the ZDHC MRSL (www.roadmaptozero.com/fileadmin/pdf/MRSL_v1_1.pdf) and to the Nike RSL in this Playbook.

3 NIKE MATERIALS SUSTAINABILITY INDEX (MSI)

Nike works with some of the best suppliers in the world, companies committed to producing the highest performing and most sustainable materials. Using the MSI, Nike awards points to suppliers based on progress within their facilities and the degree to which they advance the sustainability of their materials.

The Validation of a Greening Effort (VGE) program enables suppliers to receive MSI points based on selecting better chemistries in the production of materials. The VGE review process ranks the chemistry improvement and then awards a specific material or materials up to seven (7) Nike MSI points depending on the nature of the improvement. Using the approach outlined in our chemical assessment program, the review process may include a third-party toxicology review depending on the specific process, material or chemical change submitted.

WE SEE CHALLENGES AS OPPORTUNITIES TO INNOVATE, CREATE & MOVE TOWARDS A BETTER FUTURE.

Examples of VGE actions that could gain MSI points include:

- Replacing hazardous chemistry with safer alternatives
- Producing a new material with a lower hazard profile
- Reducing or eliminating the use of solvents

All Nike material vendors are strongly encouraged to participate in this program and should submit the VGE form on page 109 to begin the review process.

Nike MSI also awards points to suppliers for advancing the sustainability practices of their manufacturing facilities, including RSL performance and the adoption of bluesign® certified chemistry.

For more information, please log into the Nike Vendor Portal at www.nikemsivp.com.

4 CHEMICAL ASSESSMENTS

We understand that every chemistry-related decision can affect the efficiency of manufacturing processes, product performance, risks to workers, impacts to the environment and product performance. We also know that every chemistry decision comes with the opportunity to innovate. To accelerate innovation and reduce potential risks, Nike continues to enhance our chemical assessment process.

The introduction of any new materials, new manufacturing processes or new chemistries requires a Nike chemical assessment. In the assessment, chemicals are ranked and compared to benchmark values. If a chemical is flagged during the assessment process, the Nike Chemistry Center of Excellence (COE) works with Nike innovation teams and chemical manufacturers to find a safer alternative.

This assessment can also be applied to materials when the processing chemistry changes. For example, if a new material uses compliant yarns and existing knitting machines, but has a different construction, no chemical

assessment is needed. However, if a supplier uses a new catalyst for polyester, the material must go through the chemical assessment process to protect against introducing controversial chemicals into the supply chain.

Performing chemical assessments early in the innovation cycle helps us identify controversial chemistries and work with our supply chain and internal teams to replace Hazard Category 1 or chemicals with high skin-sensitization potential with better chemistry alternatives.

Suppliers, Nike teams or Nike affiliates can request a chemical assessment, which is performed in one of two ways:

DISCLOSURE TO NIKE (PREFERRED)

Under the protection of a non-disclosure agreement (NDA), the supplier provides all CAS numbers and concentrations to the Nike Chemistry COE so they may perform the chemical assessment – including a toxicology review and legislative/regulatory sweep to ensure there aren't any market access concerns with producing or selling the material or product.

Once the Nike Chemistry COE receives the required information, the team will set up a meeting with the supplier to review results and discuss any red flags as well as next steps.

DISCLOSURE TO AN INDEPENDENT TOXICOLOGIST

The supplier may choose to work directly with a Nike-approved third-party toxicologist. With this approach, Nike receives a redacted report indicating any red flags, such as high hazards or presence on specific watch lists. If any flags show up, Nike can work directly with the supplier to obtain additional information.

CONTACT

For more information on the chemical assessment process, or to request a chemical assessment, please contact the Nike Chemistry COE using the contact information at the end of the Playbook.





INPUT MANAGEMENT

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REDUCING SOLVENT USE IN FINISHED-GOODS FACTORIES

CONTROLLING CHEMICAL INPUTS

OVERVIEW

The Nike RSL plays a critical role in our chemical compliance program; however, responsible chemical management goes beyond complying with test limits for finished materials. Best practices for chemical management begin with controlling the quality of chemicals sourced and used within a manufacturing facility. By using industry tools that guide procurement of compliant input chemistry, suppliers can confidently select chemical formulations that enable improved worker safety, in addition to wastewater, material and product compliance.

Input management isn't a new concept within manufacturing; our long-standing approach of restricting chemicals within finished goods has required our suppliers to control input chemistry by sourcing process chemicals that comply with Nike RSL policy. We've also managed our own Manufacturing Restricted Substance List (MRSL) for many years, which provides guidance for controlling specific chemicals during manufacturing.

Together, both approaches require suppliers to make critical decisions about which chemicals to purchase and from whom. Nike suppliers have access to the bluesign® bluefinder, a database of third-party certified chemical formulations. Though effective, recent developments within the footwear and apparel industry support Nike's evolving approach to input management and our expectations of suppliers.

OUR COMMITMENT

Effective input management strengthens Nike's commitment to worker safety and wastewater compliance, and supports our suppliers in their obligation to provide Nike with RSL-compliant materials and finished goods. It's also critical for helping us achieve our aspirational goal of zero discharge of hazardous chemicals. Given the broad value of input management and the importance of using common requirements within our shared industry, Nike has committed to 100% compliance with the ZDHC MRSL by 2020.

APPROACH

To date, many brands have developed their own chemical compliance requirements – a practice that can create confusion for the shared global supply base. Implementing a common set of chemical requirements across the industry – adopted by many brands – enables suppliers to maintain compliance consistently.

ZDHC MRSL

Nike collaborated with industry peers to create the ZDHC MRSL, a compliance standard for chemical formulations used by the footwear and apparel supply chain. First released in 2014, the ZDHC MRSL was a milestone for the industry and a showcase for effective brand collaboration, with more than 20 brands agreeing on a common set of chemical compliance requirements. Nike adopted the ZDHC MRSL when it was updated in 2015. The ZDHC Foundation continues to maintain the MRSL and the most up-to-date version can be found on www.roadmaptozero.com.

EXPECTATIONS

Nike expects suppliers to make decisions that support our commitment to using MRSL-compliant chemistry. Suppliers must understand the technical requirements of the ZDHC MRSL and use the tools that support procurement of compliant formulations. We have two expectations:

1 COMPLIANCE WITH THE ZDHC MRSL

- Facilities within our supply chain must use chemical formulations that meet the applicable requirements of the ZDHC MRSL
- Suppliers must not intentionally use chemicals listed in the ZDHC MRSL
- All chemical formulations purchased and used to process raw materials (such as dyes) must meet the strict chemical limits outlined in the ZDHC MRSL
- To procure compliant chemicals, suppliers should discuss ZDHC MRSL requirements with their chemical suppliers

CONTROLLING CHEMICAL INPUTS

Currently, the ZDHC MRSL covers the production of textiles, synthetic leather and natural leather as well as the processing chemistries related to each of these materials. Future updates of the ZDHC MRSL will include other types of raw material production.

2 NIKE'S CLS ON RESTRICTED SUBSTANCE MANAGEMENT

As part of our factory compliance program, we use Nike CLSs to help evaluate management systems and the leadership behaviors and practices that demonstrate COC compliance. We expect our suppliers to meet these requirements.

IMPLEMENTATION TOOLS

ZDHC FOUNDATION

The ZDHC Foundation developed two tools to help guide the procurement of ZDHC MRSL-compliant chemistry and formulations:

MRSL CONFORMANCE GUIDANCE

This valuable resource helps suppliers understand how chemical formulations are evaluated and rated for ZDHC MRSL conformity. The rating structure, from Level 0 to Level 3, is related to the depth of the assessment and confidence that the formulation will consistently meet ZDHC MRSL requirements.

ZDHC GATEWAY-CHEMICAL MODULE

This database provides visibility to MRSL-compliant chemical formulations registered by the global chemical industry. The registration process is linked to the MRSL Conformance Guidance, with each registered chemical being assigned a specific conformity level rating, from 0 to 3.

Released in 2017, this ZDHC tool is designed to help guide procurement of MRSL-compliant chemicals. Nike strongly encourages suppliers to source formulations that meet the highest level of conformity. We encourage suppliers to contact their chemical suppliers and communicate the ZDHC MRSL to them. Chemical suppliers should be able to confirm which of their products meet this requirement and help guide procurement of compliant formulations.

BLUESIGN® BLUEFINDER

This independently managed database of certified chemical formulations is an excellent resource for suppliers producing textiles and wanting to source bluesign® certified chemical formulations. Importantly, chemicals certified by bluesign® also meet ZDHC MRSL requirements. Nike suppliers are encouraged to use this database in their procurement practices; in doing so, they can receive Nike MSI points.

SCIVERALENS RAPID SCREEN

This subscription-based third-party website allows suppliers to assess formulations and obtain an early indication if the formulation or process aligns with Nike's better chemistry goals, including MRSL compliance.

REDUCING SOLVENT USE IN FINISHED-GOODS FACTORIES

Nike has a long history of controlling the use of solvents within manufacturing. We have reduced petroleum-based solvent use in Footwear by 96% since 1995.¹ As we work with other brands to achieve alignment on the industry-wide management and restriction of solvents, we recognize that we must continue to control their use in our own supply chain.

Nike requires suppliers to tightly manage a number of solvents (see Table 1). We will continue to provide guidance on better alternatives – to further protect workers, consumers and the environment – until these solvents and other listed chemistries can be eliminated from the global supply base.

Table 1.

SOLVENTS AND OTHER CHEMISTRIES THAT REQUIRE TIGHT CONTROL

CAS NO.	SUBSTANCE	SYNONYMS
71-43-2	Benzene	Benzol, Phenyl Hydride
Various	Class I and II Ozone-depleting Substances	----
127-19-5	N,N-Dimethylacetamide	DMAC
68-12-2	Dimethyl Formamide ²	DMF
67-68-5	Dimethyl Sulfoxide	DMSO
111-76-2	Ethylene Glycol Monobutyl Ether	EGBE/Butyl Cellusolve
50-00-0	Formaldehyde ²	Formic Aldehyde
75-09-2	Methylene Chloride	Dichloromethane, Methylene Dichloride
110-54-3	n-Hexane	Hexane
872-50-4	n-Methyl Pyrrolidone	NMP, 1-Methyl-2-pyrrolidinone
108-95-2	Phenol	Carbolic Acid, Phenyl Alcohol, Phenyl Hydroxide
127-18-4	Tetrachloroethylene	Perchloroethylene, PERC
71-55-6	1,1,1-Trichloroethane	1,1,1 – TCA, Methyl Chloroform
108-88-3	Toluene	Methylbenzene
79-01-6	Trichloroethylene	TCE, Trichlorethene
1330-20-7	Xylene – all isomers	Ethylbenzene, o-,m-,p-Xylene
67-66-3	Trichloromethane	Chloroform
79-00-5	1,1,2-Trichloroethane	Vinyl Trichloride
75-35-4	1,1-Dichloroethylene	1,1-Dichloroethene
Non-Solvent Chemistries		
1319-77-3	Cresol	Cresylic Acid
108-39-4	m-Cresol	
95-48-7	o-Cresol	
106-44-5	p-Cresol	
101-14-4	4,4'-Methylenebis (2-Chloraniline)	MOCA
584-84-9 91-08-7	2,4-Toluene Diisocyanate Toluene-2,6-Diisocyanate	TDI

¹ Nike Sustainable Business Report FY14/15, page 48

² Chemicals identified as high priority in Nike prioritization process



CHEMICALS MANAGEMENT

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STORAGE & HANDLING

OCCUPATIONAL HYGIENE & WORKER PROTECTION

USE & EFFICIENCY

MANAGING THE USE OF CHEMICAL PRODUCTS

OVERVIEW

Procurement of MRSL- and RSL-compliant chemistries is the beginning of an ongoing journey towards creating RSL-compliant materials and finished goods, protecting workers and reducing chemical impacts across the supply chain. From the initial procurement step to the delivery of finished goods, chemistry must be managed properly and effectively at every step.

Embedding – and following – policies and procedures that guide proper inventory management, storage, handling and use is paramount to maximizing the benefits of procuring high-quality chemical formulations.

APPROACH

Effective chemicals management is equally important for material vendors and finished-goods factories, and Nike expects all suppliers to integrate the guiding principles of chemical management into their businesses. Nike uses two approaches to assess capability and performance.

FINISHED-GOODS FACTORIES

We use the NCAT to evaluate performance and behaviors against the CLSs for Hazardous Materials and Restricted Substance Management. Supplier performance against both CLSs influences overall factory ratings.

MATERIAL VENDORS

Nike strongly encourages vendors to use the Higg FEM framework to assess chemical management capability.

OUR COMMITMENT

Establishing a strong foundation of chemicals management capability across our supply chain is a key priority. In updates to our COC in 2017, we elevated our expectations of suppliers, and, importantly, maintained our 2020 target of 100% Bronze compliance across our contract factories.

HIGG FEM

As a founding member of the Sustainable Apparel Coalition (SAC), Nike has been actively engaged in updating the Higg FEM. Similar to other components of the Higg Index, the FEM is a self-assessment tool that measures and guides sustainability performance in a structured way, with a focus on chemicals management, energy, water, waste and other related areas. Completing the Higg Index allows suppliers to:

- Better understand a facility's environmental impacts
- Develop comprehensive strategic policies to manage and improve environmental performance
- Identify opportunities to improve performance and gain efficiencies
- Benchmark results against industry peers
- Share assessment results more easily with numerous customers or supply chain partners

EXPECTATIONS

Nike expects all supplier facilities – both finished-goods factories and materials vendors – to employ a successful chemicals management program and to use applicable assessment tools to demonstrate capabilities and guide efforts to elevate performance.

ELEMENTS OF A SUCCESSFUL CHEMICAL MANAGEMENT PROGRAM

To successfully mitigate the risks associated with chemical use, suppliers must follow best practices, which include:

- Sourcing compliant chemicals
- Effective chemical inventory management
- Understanding how to use safety data sheets (SDSs)
- Safe chemical storage and handling
- Disposal in accordance with local law and permits
- Use of personal protective equipment (PPE) and basic spill response

Facility leadership must ensure that all workers understand these basic principles and are aware of the risks associated with improper chemical management. Nike believes that continuous improvement is central to a successful program and that “there is no finish line.”

TRAINING OPPORTUNITIES

The foundation of a robust chemicals management program is knowledge. Understanding the principles of chemicals management and putting them into practice requires an ongoing commitment to training from factory leadership and staff.

NIKE WEB-BASED TRAINING

Nike offers a web-based, on-demand chemicals management training course that covers the key elements of a successful program. This training can be accessed at www.nikeincchemistry.com at any time and repeated whenever staffing changes occur.

Material vendors can receive Nike MSI points for completing the training.

ZDHC IN-PERSON TRAINING

The ZDHC Foundation offers a valuable two-day in-person chemicals management training session.

Find more information at www.roadmaptozero.com/academy/.

INVENTORY

MANAGEMENT, TRANSPARENCY & TRACEABILITY

After procuring compliant input chemistry, implementing a robust chemical inventory management program is a critical next step. Effective inventory management optimizes suppliers' investments and supports efforts to protect workers, produce compliant finished goods and guide correct disposal of chemicals.

Once a chemical enters a facility, a typical inventory contains comprehensive information, including:

- Commercial name of all chemicals on-site going back 24 months
- Name of each chemical and its manufacturer
- Chemical volume/mass
- Location in the facility
- Expiration date
- Hazard information
- Disposal record
- Up-to-date SDSs
- ZDHC MRSL compliance status (including conformity level)
- References to recipes and formulas that use the chemical to support traceability

Establishing and maintaining a chemical inventory is critical and requires strong oversight to ensure it is accurate and up to date. Chemical inventory management software is an effective way of managing information.

By using a service such as ADEC Cleanchain™ (<http://cleanchain.adec-innovations.com>), the inventory can be cross-referenced with the ZDHC Gateway to provide real-time validation of MRSL compliance.

The ability to report inventory data accurately and automatically is of great benefit to suppliers, given Nike's commitment to 100% MRSL compliance as well as commitments by many other brands to adopt the ZDHC MRSL.

A robust chemical inventory also helps suppliers track and manage volumes of chemical products consumed or disposed of, enabling a facility to calculate efficiencies and use a mass balance approach for each unit process. Year-on-year review of chemical masses per kilogram of material or product should also be calculated to help clarify where more stringent controls can help save costs, reduce waste and decrease the amount of expiring chemicals.

Ensuring each chemical product has an accompanying SDS is also critical. SDSs help facilities understand which specific chemistries might require specialized engineering controls, PPE, storage or wastewater treatment systems. Reviewing an SDS is important for understanding how to safely manage a chemical within the facility. It is also one of several tools that allow a supplier to monitor for RSL and MRSL conformity as well as broader compliance with other global regulatory lists, such as REACH Substances of Very High Concern (SVHC) and California Proposition 65. Such reviews will enable suppliers to look for controversial or regulated chemicals in their inventories and help expedite the work of removing those chemicals from use.

With industry focus on transparency and elevated chemical reporting requirements in multiple regions, suppliers must fully understand the chemical makeup of their materials and products to move towards a less hazardous future.

STORAGE & HANDLING

The chemical inventory and the SDS contain important guidance for storing and handling chemicals. Specifically, the physico-chemical properties and toxicological hazards outlined in the SDS are critical for making informed decisions that protect workers and the environment. For example, given the variety of chemicals typically sourced by a facility, it's unlikely that the same type of PPE is sufficient to protect against all chemicals. Care must be taken to understand the possible PPE requirements of each chemical.

Furthermore, decisions about safe chemical storage are predicated on an understanding of chemical properties and chemical compatibility. Though suppliers should always have a dry, well-ventilated storage space, chemical compatibility cannot be overlooked. Nike provides detailed guidance on this topic in the Chemicals Management training course.

OCCUPATIONAL HYGIENE & WORKER PROTECTION

Protecting the health and safety of people in the workplace is a critical component of a good chemicals management program.

To ensure that workers are protected from chemical hazards, Nike developed a CLS that outlines principles and practices of a good Occupational Hygiene program. Suppliers are required to follow best practices to anticipate, recognize, evaluate and control occupational health and hygiene hazards in the workplace.

Where local requirements do not exist, suppliers must comply with the most restrictive recognized regulation or consensus standards: the American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values (TLVs) or the U.S. Occupational Safety and Health Administration (OSHA) for Permissible Exposure Limits (PELs).

Standards selected must provide the greatest level of protection to employees in the work environment.

ANTICIPATE

- Review SDSs and chemical inventory
- Identify jobs that require transporting, handling and using chemicals; include those jobs in which workers are exposed to chemicals while performing their work
- Train affected workers on the hazards of the chemicals
- Develop processes and procedures to reduce and minimize worker exposure to chemicals

RECOGNIZE & EVALUATE

- Identify hazards associated with each chemical
- Determine if chemicals are regulated or have established occupational exposure limits (OELs)
- Routinely monitor potential worker exposure to regulated chemicals using standard analytical methods
- Determine the potential health effects of hazards that are present in the workplace

CONTROL

- Reduce worker exposures to below established OELs, or as defined by local and international thresholds
- If no OEL exists, review available toxicological data, entry pathways into the body and implement control measures to reduce worker exposure
- The control hierarchy to reduce worker exposure from most to least effective is:
 1. Substitution
 2. Engineering
 3. Administrative
 4. PPE

OCCUPATIONAL HYGIENE PROGRAM MANAGEMENT

See the Nike CLS for Occupational Exposure Limit to review roles and responsibilities.

To access Nike's COC and CLSSs, refer to <https://about.nike.com/pages/resources-faq>.

USE & EFFICIENCY

Using RSL- and MRSL-compliant formulations in a manufacturing environment is the first step in meeting critical sustainability and compliance goals. The proper, efficient use of all chemicals will maximize value and minimize impacts. World-class procurement practices and maximizing chemical efficiencies in production amplify one another to accelerate efforts in reducing the amount of controversial chemistries consumed and potentially discharged.

PROCESS CONTROLS TO INCREASE EFFICIENCY

Efficient chemical use is a broader concept than simply balancing chemical reactions. Implementing process controls that ensure a "first-time right" approach can reduce reworking and/or demand for extra chemistry – which has a huge impact on efficiency. The first-time right approach can increase overall efficiency and reduce water use, energy use as well as labor costs.

Beyond substituting out all controversial chemistries, which takes time to do correctly, the most effective means for immediate reduction in chemical impacts is to optimize the efficiency of each process, eliminating unreacted chemistry and potential overuse. While this is simple in concept, it is not always simple in practice and requires in-depth process knowledge and chemistry expertise.

Nike strongly encourages suppliers to investigate each unit process and perform mass balance calculations to ensure that only the appropriate amounts of chemical formulations are used to achieve the intended function.

CHEMICAL EFFICIENCY EXAMPLE

To determine how much scouring agent should be used in a water bath, the following questions might be asked and answered to stimulate a conversation on efficiency:

- How much scouring agent is required to clean the specific material? How is this determined?
- Has the minimum amount of required scouring agent been calculated for different material types, or is excess being used?


- Has the amount of scouring agent used increased or decreased in the previous two years on a per-kilogram basis? Why?
- How does the temperature, pH and water quality in the scouring bath affect the amount of chemical required?
- What impact does the scouring agent have on the wastewater treatment plant?
- Can the wastewater treatment plant be run more efficiently with a lower incoming surfactant load or benefit from an alternative scouring agent that degrades more readily?
- What impact does lower surfactant loading have on biological oxygen demand, chemical oxygen demand, pH and other wastewater testing requirements?
- Did the use of too little scouring agent result in dye uptake issues and/or reworking materials?
- Are better scouring agents available that reduce environmental impacts?
- Are sizing agents available that eliminate the need for scouring, or can the sizing agent be recovered?

All unit processes should be reviewed for chemistry use and to highlight areas for improvement. To find maximum impact and returns, facilities must employ a comprehensive approach that includes water use, energy use and considerations of the wastewater treatment plant or other discharge streams.

EFFICIENCY & NIKE MSI

Efficient use of better chemistries can also qualify material vendors for Nike MSI points through the VGE program. We encourage all material vendors to participate, as MSI points help elevate the visibility of materials created with better chemistry for use in Nike products. Find the VGE form on page 109 to get started.





OUTPUT MANAGEMENT

OVERVIEW

APPROACH

OUR COMMITMENT

WASTEWATER

HAZARDOUS WASTE DISPOSAL & FACTORY AIR EMISSIONS

MATERIALS

MANAGING OUTPUTS

OVERVIEW

A manufacturing facility is not a closed system. Chemical, energy, material and labor inputs are converted into products, and what does not end up as product leaves as waste. The proper management of chemical outputs from a production facility is a key component of a holistic chemicals management program and represents another step towards meeting the aspirational goal of zero discharge of hazardous chemicals.

APPROACH

Over the last several years, the apparel and footwear industry has transformed the practice of chemicals management, aligning on an MRSL, a chemicals management assessment framework and an RSL – all signs of maturity within the field of chemical compliance.

Robust industry-wide collaboration is a highly effective means of improving the management of chemical outputs.

A clear example is the success of the 2016 ZDHC wastewater guideline. This multibrand effort resulted in updated requirements and an improved approach for brands and suppliers to manage wastewater, including a set of clear guidelines for acceptable concentrations of chemicals in wastewater.

OUR COMMITMENT

Nike is committed to working with suppliers to ensure compliance with the requirements of the ZDHC wastewater guideline.

In addition, Nike maintains strong brand-specific requirements regarding the management of chemical outputs. These requirements are laid out in Nike CLSs and are supported by the Higg FEM. Detailed guidance covers:

- Wastewater
- Hazardous waste disposal
- Factory air emissions
- Hazardous materials
- Restricted substances/ input management
- Solid waste
- Storage tanks

Key requirements for wastewater, hazardous waste disposal and factory air emissions are covered below.

WASTEWATER

Wastewater is water that is no longer usable for a given operational purpose. This includes:

- Water that has been used for domestic purposes (showers, toilets, kitchens and dormitories)
- Water discharged from industrial processes (dyeing and finishing, laundries, washing and rinsing, etc.)

All wastewater must be properly managed and treated to comply with Nike's CLS for Wastewater.

NIKE WATER MINIMUM PROGRAM

The Nike Water Minimum Program helps suppliers identify opportunities for greater efficiency and to adequately prepare for closed-loop water through recycling.

- Sets foundational expectations for facility's commitment to water stewardship including policy, key performance indicators, water balance and maintenance
- Establishes expectation for water and wastewater treatment system data collection to assist with troubleshooting and optimizing wastewater treatment systems to comply with the ZDHC wastewater guideline
- Encourages facilities to understand their water scarcity and flooding risks by using the World Resources Institute's Aqueduct platform, found at www.wri.org/our-work/project/aqueduct
- Provides a structured approach to the operation and maintenance of water and wastewater treatment equipment

NIKE WASTEWATER QUALITY REQUIREMENTS

Nike CLS for Wastewater requires that facilities comply with Nike's wastewater quality requirements.

- We assess finished-goods factories using the NCAT
- We assess material vendors using the Higg FEM

At a minimum, a facility must be legally compliant with the permit issued to them by the authority having jurisdiction. This authority may vary from location to location; it might be the operator of an industrial park wastewater treatment system or a local, state or national government.

Nike requires proof of compliance at least twice per year, even if the legal obligation only requires annual sampling. It is critical for the enterprise to fully understand the legal requirements associated with discharging wastewater prior to any wastewater output.

Note that the definition of legal compliance varies from country to country, and in some countries what is considered "legal compliance" may not meet Nike's requirements for wastewater.

At no time shall untreated wastewater be released into the environment.

This includes both domestic and industrial wastewater. Discharges to unlined ponds or lagoons are considered releases to the environment.

ZDHC WASTEWATER GUIDELINE REQUIREMENTS

Finished-goods factories that directly discharge wastewater to the environment are required to meet foundational limits for ZDHC conventional and metal parameters twice per year by sampling before April 30 and October 31 using an ISO-17025-certified lab.

Nike requires material vendors and finished-goods factories with material vendor operations to follow the entire ZDHC wastewater guideline. These suppliers are responsible for determining ZDHC requirements using applicability found in the ZDHC wastewater guideline, including:

- Uploading ISO 17025 and ZDHC-accredited laboratory results to the ZDHC Gateway Wastewater Module by April 30 and October 31 of each year at www.roadmaptozero.com/login
- Direct dischargers must meet the requirements for the conventional wastewater parameters (chemical oxygen demand, biological oxygen demand, ammonia, coliform, etc.) as well as Metals (Lead, Mercury, etc.)

- Ensure wastewater ZDHC MRSL parameters do not exceed the specified limits
- For any parameter that exceeds ZDHC requirements, the facility must provide a corrective action plan and commit to a date for resolving the non-compliance(s)

For indirect and direct wastewater discharging facilities, the ZDHC wastewater guideline sets MRSL limits that support activities phasing out the intentional use of MRSL-restricted chemistries. For direct dischargers, the ZDHC wastewater guideline uses a three-level approach – foundational, progressive, and aspirational – to drive continuous improvement with conventional and metal wastewater quality parameters. As facilities achieve progressive and aspirational performance, it becomes feasible to recycle at least 50 percent of the treated wastewater back into manufacturing processes.

By adopting the ZDHC wastewater guideline and coupling this approach with closed-loop water, we envision a supply chain where there is zero industrial wastewater discharge, making the need for a wastewater quality guideline obsolete.

NIKE WASTEWATER GUIDANCE DOCUMENTS

The Nike Global Water Team has guidance documents to assist with troubleshooting wastewater parameters, including but not limited to:

- Antimony
- Coliform
- Chemical oxygen demand
- Color
- Ammonia/Nitrogen

In the event a facility or enterprise requires technical support to address a specific wastewater issue, Nike has retained an engineering firm specializing in wastewater treatment to provide phone and e-mail support. Suppliers may request access to this resource – available in English and Mandarin Chinese – through Nike's Global Water Team.

LINKS

Nike Global Water Team

waterprogram@nike.com

Roadmap to Zero Foundation

www.roadmaptozero.com/programme/wastewater-quality

World Resources Institute

www.wri.org/our-work/topics/water

Sustainable Apparel Coalition – Higg Index and Facilities Environment Module (FEM)

www.apparelcoalition.org/the-higg-index

HAZARDOUS WASTE DISPOSAL

Determining if waste is hazardous is the first step in dealing with these potential manufacturing outputs. If hazardous waste is generated on site, it is essential that suppliers safely manage it within waste collection areas, ensuring that necessary precautions – such as ventilation, secondary containment, fire prevention and spill response – are taken. Key personnel within the facility should receive training to understand how to identify and safely handle hazardous waste, manage its legal disposal with licensed waste contractors and comply with any local permitting requirements.

FACTORY AIR EMISSIONS

When air emissions must be assessed at the facility level, it is essential that suppliers complete an inventory of release identifying the source, type and amount of any chemical that is released during day-to-day operations. From routine air sampling for determining that indoor air quality meets legal standards to understanding when to use abatement technology to reduce emissions and exposure, the management and control of factory air emissions is a key compliance requirement.

MATERIALS

Finished-goods factories and material production facilities are designed to efficiently manufacture a product, be it a textile, leather or a finished shoe. Output from these facilities is based on the production and utilization of materials. From a Nike standpoint, our products and the materials used to make them must comply with Nike RSL requirements. Our approach to material compliance can be found in the following section of the Playbook.

In addition to the material testing requirements outlined in the Nike RSL, our finished-goods factories must demonstrate the necessary leadership behaviors — outlined in our updated COC and the Restricted Substance Management CLS — to successfully comply with Nike's RSL requirements.



RULES OF THE GAME: THE NIKE RSL

INTRODUCTION TO THE NIKE RSL

NIKE RESTRICTED SUBSTANCES LIST

NIKE RSL IMPLEMENTATION GUIDANCE

NIKE RSL FOR ELECTRONICS

NIKE RSL FOR TOYS

NIKE RSL FOR PACKAGING

ADDITIONAL GUIDELINES

INTRODUCTION TO THE NIKE RSL

OVERVIEW

As part of our commitment to protect workers, consumers and the environment, we routinely update the Nike RSL to keep suppliers informed about new global regulatory requirements as well as Nike's voluntary restrictions on chemicals.

NIKE RSL GOALS

- 1 Ensure products comply with the strictest global legislation
- 2 Ensure targeted substances are limited or eliminated
- 3 Catalyze sustainable product innovation

ADDITIONAL MATERIAL GUIDANCE

In addition to restrictions on specific chemical substances, the Nike RSL also contains guidance on specific materials:

- Nike Nanotechnology Requirements
- Nike Odor Management Guidelines
- Nike Animal Skin Policy

COMPLIANCE

It is our intent to give suppliers ample lead-time to understand changes and take steps to become compliant; however, there may be special circumstances – such as new or pending legislation – resulting in shorter notice.

All materials manufactured for Nike, Nike affiliates or Licensee products must comply with the requirements in this document no later than 90 days after the release date listed.

SUPPLIER AGREEMENTS

Nike supplier agreements reflect the need for compliance with RSL requirements. This compliance is in addition to the Nike COC, quality standards and other health and safety standards.

SPECIAL REQUIREMENTS

- RSL test results will be valid for one year from the test date unless otherwise stated. Nike reserves the right to request testing at any time on any material. Specific information on how and what to test is included in the Scope section of this document
- No change to process or chemicals is allowed once an RSL PASS has been received for a material. Any such changes will require a retest to confirm RSL compliance
- Subcontractors must comply with all RSL testing requirements

NIKE RSL EFFECTIVE DATE:
MAY 9, 2018

ALL MATERIALS, PRODUCTS & ITEMS MUST COMPLY WITH THIS RSL BY:

AUGUST 7, 2018

NIKE RESTRICTED SUBSTANCES LIST

RSL & CHEMICALS MANAGEMENT TRAINING

THE AFIRM GROUP RSL

NIKE: ALIGNED WITH THE AFIRM RSL

ADDITIONAL CHEMICAL LIMITS

AGE RANGES FOR INTERPRETING RSL LIMITS

NIKE RESTRICTED SUBSTANCES LIST

OTHER LIMITS & RESTRICTIONS

NIKE-SPECIFIC CHEMICAL & MATERIAL RESTRICTIONS

RSL & CHEMICALS MANAGEMENT TRAINING

To access training, please visit www.nikeincchemistry.com/training.

RSL TRAINING

This mandatory training for all finished-goods suppliers and material vendors focuses on understanding and implementing Nike RSL policy, selecting and submitting test samples, reviewing test results and the failure-resolution process.

- Suppliers must repeat RSL training every two years. As a best practice, we suggest reviewing training whenever the RSL is updated
- Available on demand for use as a refresher course and to help suppliers train new workers

CHEMICALS MANAGEMENT TRAINING

This optional training focuses on procuring formulations that comply with the Nike Manufacturing Restricted Substances List (MRSL), facility chemicals management, evaluating chemicals for hazards, and review of tools and resources available for sustainable production.

Nike MSI points are awarded to material vendors completing these trainings. For details, access the Nike Vendor Portal: www.nikemsivp.com

THE AFIRM GROUP RSL

The Apparel and Footwear International RSL Management (AFIRM) Group – a chemistry-focused apparel and footwear industry body – released the AFIRM RSL in December 2015. Nike, one of six founding member brands, has worked with the group for more than a decade to improve the management of hazardous and restricted substances in the global supply chain.

SIMPLIFIED INDUSTRY APPROACH TO RSL COMPLIANCE

AFIRM's aim in creating an industry-wide RSL was to provide an aligned approach to managing restricted substances across the largely shared global supply chain. Based on the collaborative effort of 20+ brands, the AFIRM RSL reduced the large number of complicated and contradictory brand RSLs while simplifying the approach and accelerating efforts to reduce chemical hazards.

NIKE: ALIGNED WITH THE AFIRM RSL

Nike aligned our RSL with the AFIRM RSL in January 2017. This 2018 update continues to support alignment to the AFIRM RSL.

Just as all previous Nike RSLs were based on legislated and voluntary commitments to creating safe products, the AFIRM RSL builds upon this approach with chemical limits based on legislation, industry best practices and voluntary reductions in hazardous chemicals.

NIKE-SPECIFIC RESTRICTIONS

A separate list of Nike-specific chemical and material restrictions follows the Nike RSL.

ADDITIONAL CHEMICAL LIMITS

The chemicals in the AFIRM and Nike RSLs represent chemistries historically identified through chemical testing, global industry knowledge or safeguarding against use of hazardous – yet unlikely – chemistries.

The continual innovation of new materials requires consideration of new chemistries, which may be outside the typical realm of apparel and footwear production. Because of this, it's imperative suppliers comply with the following lists and current Nike RSL.

Two of those are listed below- the REACH Substances of Very High Concern (SVHC) List, and the California Proposition 65 List.

Nike includes the most relevant chemicals from these lists in our RSL, but all chemicals require due diligence to ensure they do not violate the restrictions below.

SUBSTANCES OF VERY HIGH CONCERN

Substances of very high concern (SVHCs) are proposed by the European Commission (EC) or EU member states based on scientific evidence indicating potential hazards to human health or the environment, and placed on the Candidate List.

The inclusion of substances on the Candidate List triggers obligations for importers, producers and suppliers of an article that contains one or more of these substances above 0.1% by weight per component.

The obligations include providing sufficient information to allow safe use of the article to brand and retail customers or, upon request, to a consumer within 45 days of receipt of the request.

In addition, the European Chemicals Agency (ECHA) must be notified if the substance(s) are present in article components above 0.1% in quantities totaling over one ton per producer or importer per year. A notification isn't required if the substance has already been registered for that use or when the producer or importer of an article can exclude exposure of humans and the environment during the use and disposal of the article. In such cases, the producer or importer must supply appropriate instructions to the recipient of the article.

ECHA periodically updates the Candidate List – the most current version can be found at www.echa.europa.eu/candidate-list-table.

CALIFORNIA PROPOSITION 65 SUBSTANCES LIST

Published annually, this list contains chemicals known to the state of California to cause cancer or reproductive toxicity.

Businesses that expose individuals to one or more of the listed chemicals must provide a clear and reasonable warning before exposure occurs. For products sold to a consumer, this is typically through product warning labels or store signage. Note that this is not the same as a regulatory requirement indicating that the product is “unsafe” if a specific concentration is exceeded.

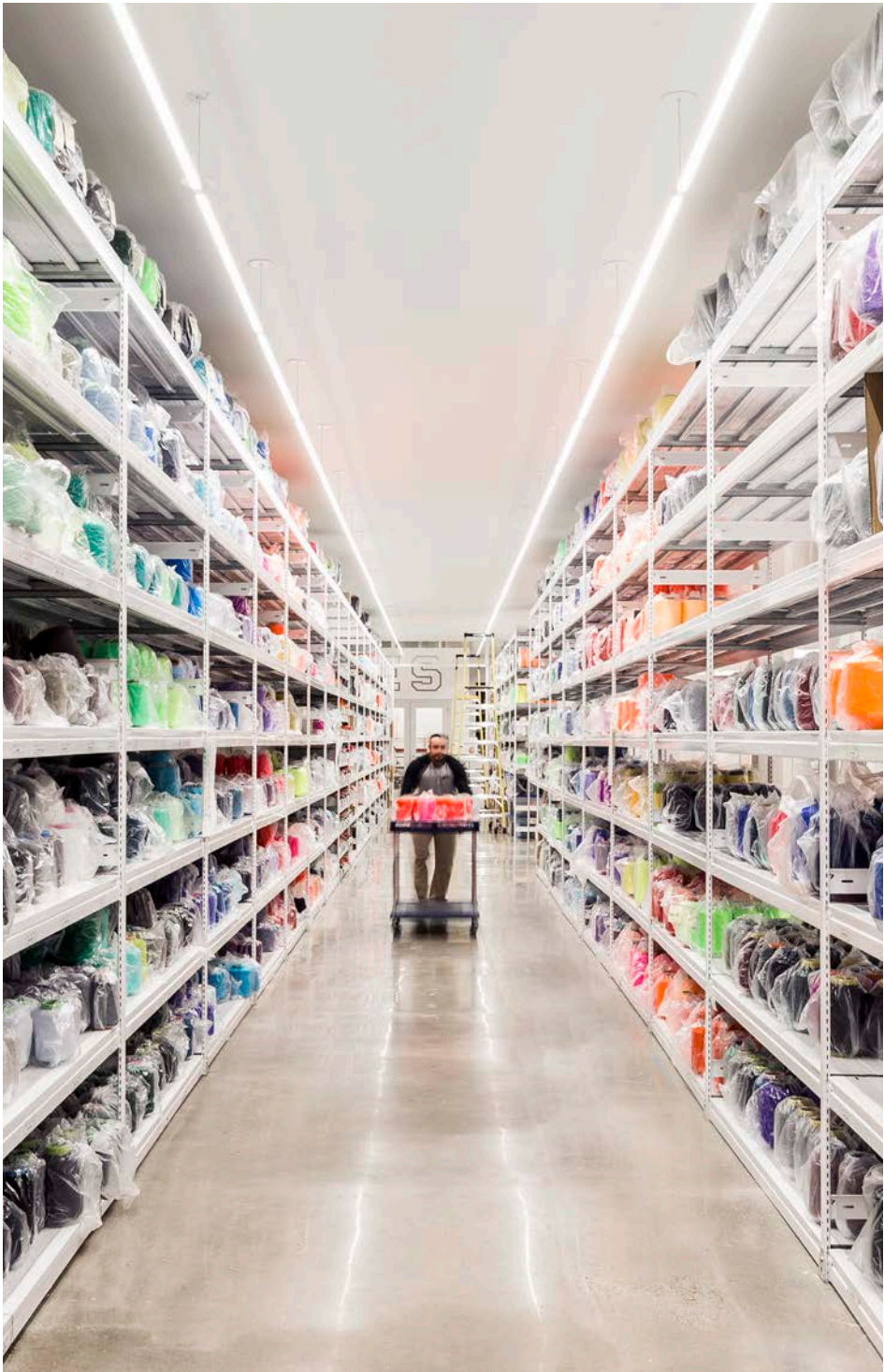
Enforcement is carried out through civil lawsuits brought by the Attorney General, District Attorneys or private parties acting in the public interest. Additional information can be found at www.oehha.ca.gov/proposition-65.

AGE RANGES FOR INTERPRETING RSL LIMITS

- Various countries define the terms “babies,” “infants,” “toddlers,” “children” and “adults” differently.
- Based on legislation, the age ranges listed in Table 2 satisfy the most restrictive global requirements.

Table 2.
SIZING BY AGE RANGE

	BABIES, INFANTS, TODDLERS	LITTLE KIDS	BIG KIDS	ADULTS
	0–36 months	3–7 years	7–14 years	14 years +
APPAREL SIZE UNITED STATES	0–4T	4–7 boys 4–6x girls	8–20 boys 7–14 girls	
APPAREL SIZE EUROPE	68–98 cm	104–128 cm	128–182 cm boys 128–176 cm girls	
APPAREL SIZE ASIA	< 85 cm	85–120 cm	120–170 cm	
FOOTWEAR	≤ 17 cm	17.5–22 cm	22.5–25 cm	
EQUIPMENT	Pee Wee	Junior	Youth	



NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Acetophenone and 2-Phenyl-2-Propanol					
98-86-2	Acetophenone	50 ppm = Pass >50–1,000 ppm = Warning range; follow up required >1000 ppm = Do not ship	25 ppm	Potential breakdown products in EVA foam when using dicumyl peroxide as a cross- linking agent.	Extraction in acetone GC/MS, sonication for 30 minutes at 60°C
617-94-7	2-Phenyl-2-Propanol				
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs), including all isomers					
Various	Nonylphenol (NP), mixed isomers	Total: 100 ppm	Sum of NP and OP: 10 ppm	APEOs can be used as or found in detergents, scouring agents, spinning oils, wetting agents, softeners, emulsifying/ dispersing agents for dyes and prints, impregnating agents, de-gumming for silk production, dyes and pigment preparations, polyester padding and down/feather fillings.	Extraction: 1 g sample/20 mL THF, sonication for 60 minutes at 70°C Analysis: EN ISO 18857-2
Various	Octylphenol (OP), mixed isomers				
Various	Nonylphenol Ethoxylates (NPEOs)	Total of NPEO/OPEO: 100 ppm = Pass >100–250 ppm = Warning range; follow up required >250 ppm = Do not ship	Sum of NPEO/OPEO: 20 ppm	APs may be used as intermediaries in the manufacture of APEOs and antioxidants used to protect or stabilize polymers. Biodegradation of APEOs into APs is the main source of APs in the environment.	Textile: EN ISO 18254-1:2016 Leather: EN ISO 18218-1:2015
Various	Octylphenol Ethoxylates (OPEOs)				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Azo-amines					
92-67-1	4-Aminobiphenyl	20 ppm each	5 ppm per listed amine in product	Azo dyes and pigments are colorants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those which degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for dyeing of textiles.	Textile: EN ISO 14362-1:2017 Leather: EN ISO 17234-1:2015 p-Aminoazobenzene: Textile: EN ISO 14362-3:2017 Leather: EN ISO 17234-2:2011
92-87-5	Benzidine				
95-69-2	4-Chlor-o-toluidine				
91-59-8	2-Naphthylamine				
97-56-3	o-Aminoazotoluene				
99-55-8	2-Amino-4-nitrotoluene				
106-47-8	p-Chloraniline				
615-05-4	2,4-Diaminoanisole				
101-77-9	4,4'-Diaminodiphenylmethane				
91-94-1	3,3'-Dichlorobenzidine				
119-90-4	3,3'-Dimethoxybenzidine				
119-93-7	3,3'-Dimethylbenzidine				
838-88-0	3,3'-dimethyl-4,4'-diaminodiphenylmethane				
120-71-8	p-Cresidine				
101-14-4	4,4'-Methylen-bis(2-chloraniline)				
101-80-4	4,4'-Oxydianiline				
139-65-1	4,4'-Thiodianiline				
95-53-4	o-Toluidine				
95-80-7	2,4-Toluyldiamine				
137-17-7	2,4,5-Trimethylaniline				
95-68-1	2,4 Xylidine				
87-62-7	2,6 Xylidine				
90-04-0	2-Methoxyaniline (= o-Anisidine)				
60-09-3	p-Aminoazobenzene				
106-49-0	p-Toluidine	Additional screening tests for all Nike products. For information only.			
108-44-1	m-Toluidine				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Bisphenol-A					
80-05-7	Bisphenol-A (BPA) Testing required for food-contact items including water bottles and mouth guards.	1 ppm Banned from use as a monomer in the production of items that come into contact with food.	1 ppm	Used in the production of epoxy resins, polycarbonate plastics, flame retardants and PVC. Prohibited from use in food and drink containers, and items intended to come into contact with the oral cavity.	Sample preparation: Extraction: 1g sample/20mL methanol, sonication for 60 minutes at 70°C Measurement: DIN EN ISO 18857-2 (mod)
Chlorinated Paraffin					
85535-84-8	Short-chain chlorinated Paraffins (SCCP) (C10-C13)	1,000 ppm	100 ppm	May be used as softeners, flame retardants or as fat liquoring agents in leather production. Also used as plasticizer in polymer production.	Combined CADS / ISO 18219:2015 method V1:06/17
85535-84-9	Medium-chain chlorinated Paraffins (MCCP) (C14-C17)	1,000 ppm	100 ppm		(extraction by ISO 18219 and analysis by GC-NCI-MS)
Chlorophenols					
15950-66-0	2,3,4-Trichlorophenol	0.5 ppm each	0.5 ppm each	Chlorophenols are polychlorinated compounds used as preservatives or pesticides. Pentachlorophenol (PCP) and tetrachlorophenol (TeCP) are sometimes used to prevent mold and kill insects when growing cotton and when storing/ transporting fabrics. PCP and TeCP can also be used as preservatives in print pastes.	1M KOH extraction, 12-15 hours at 90° C, derivatized and analysis § 64 LFGB B 82.02-08 or DIN EN ISO 17070:2015
933-78-8	2,3,5-Trichlorophenol				
933-75-5	2,3,6-Trichlorophenol				
95-95-4	2,4,5-Trichlorophenol				
88-06-2	2,4,6-Trichlorophenol				
609-19-8	3,4,5-Trichlorophenol				
4901-51-3	2,3,4,5-Tetrachlorophenol (TeCP)				
58-90-2	2,3,4,6-Tetrachlorophenol (TeCP)				
935-95-5	2,3,5,6-Tetrachlorophenol (TeCP)				
87-86-5	Pentachlorophenol (PCP)				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Chlororganic Carriers					
95-49-8	2-Chlorotoluene	Total: 1 ppm	0.1 ppm	Chlorobenzenes and chlorotoluenes (chlorinated aromatic hydrocarbons) can be used as carriers in the dyeing process of polyester or wool/ polyester fibers. They can also be used as solvents.	DIN 54232:2010
108-41-8	3-Chlorotoluene				
106-43-4	4-Chlorotoluene				
32768-54-0	2,3-Dichlorotoluene				
95-73-8	2,4-Dichlorotoluene				
19398-61-9	2,5-Dichlorotoluene				
118-69-4	2,6-Dichlorotoluene				
95-75-0	3,4-Dichlorotoluene				
2077-46-5	2,3,6-Trichlorotoluene				
6639-30-1	2,4,5-Trichlorotoluene				
875-40-1	2,3,4,6-Tetrachlorotoluene				
1006-31-1	2,3,5,6-Tetrachlorotoluene				
877-11-2	Pentachlorotoluene				
541-73-1	1,3-Dichlorobenzene				
106-46-7	1,4-Dichlorobenzene				
87-61-6	1,2,3-Trichlorobenzene				
120-82-1	1,2,4-Trichlorobenzene				
108-70-3	1,3,5-Trichlorobenzene				
634-66-2	1,2,3,4-Tetrachlorobenzene				
634-90-2	1,2,3,5-Tetrachlorobenzene				
95-94-3	1,2,4,5-Tetrachlorobenzene				
608-93-5	Pentachlorobenzene				
118-74-1	Hexachlorobenzene				
95-50-1	1,2-Dichlorobenzene	10 ppm	1 ppm		

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Dimethylformamide					
68-12-2	Dimethylformamide (DMFa)	500 ppm = Pass >500–1000 ppm = Warning range; follow up required >1000 ppm = Do not ship	50 ppm	DMFa is a solvent used in plastics, rubber, & polyurethane (PU) coating. Water-based PU does not contain DMFa and is therefore preferable.	DIN CEN ISO/TS 16189:2013
Dimethylfumarate					
624-49-7	Dimethylfumarate (DMFu)	0.1 ppm	0.05 ppm	DMFu is an anti-mold agent used in sachets in packaging to prevent the buildup of mold, especially during shipping.	CEN ISO/TS 16186:2012
Dyes – Disperse					
2475-45-8	C.I. Disperse Blue 1	Prohibited 50 ppm each as impurities	15 ppm	Disperse dyes are a class of water-insoluble dyes that penetrate the fiber system of synthetic or manufactured fibers and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fiber (e.g., polyester, acetate, polyamide). Restricted disperse dyes are suspected of causing allergic reactions and are prohibited from use for dyeing of textiles.	DIN 54231:2005
2475-46-9	C.I. Disperse Blue 3				
3179-90-6	C.I. Disperse Blue 7				
3860-63-7	C.I. Disperse Blue 26				
12222-75-2	C.I. Disperse Blue 35				
69766-76-6	C.I. Disperse Blue 102				
12223-01-7	C.I. Disperse Blue 106				
61951-51-7	C.I. Disperse Blue 124				
23355-64-8	C.I. Disperse Brown 1				
2581-69-3	C.I. Disperse Orange 1				
730-40-5	C.I. Disperse Orange 3				
82-28-0	C.I. Disperse Orange 11				
12223-33-5	C.I. Disperse Orange 37/76/59				
13301-61-6					
51811-42-8					
85136-74-9	C.I. Disperse Orange 149				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Dyes – Disperse, continued					
2872-52-8	C.I. Disperse Red 1	Prohibited 50 ppm each as impurities	15 ppm	Disperse dyes are a class of water-insoluble dyes that penetrate the fiber system of synthetic or manufactured fibers and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fiber (e.g., polyester, acetate, polyamide). Restricted disperse dyes are suspected of causing allergic reactions and are prohibited from use for dyeing of textiles.	DIN 54231:2005
2872-48-2	C.I. Disperse Red 11				
3179-89-3	C.I. Disperse Red 17				
61968-47-6	C.I. Disperse Red 151				
119-15-3	C.I. Disperse Yellow 1				
2832-40-8	C.I. Disperse Yellow 3				
6300-37-4	C.I. Disperse Yellow 7				
6373-73-5	C.I. Disperse Yellow 9				
6250-23-3	C.I. Disperse Yellow 23				
12236-29-2	C.I. Disperse Yellow 39				
54824-37-2	C.I. Disperse Yellow 49				
54077-16-6	C.I. Disperse Yellow 56				
Dyes – Acid, Basic, Direct, Other					
3761-53-3	C.I. Acid Red 26	Prohibited 50 ppm each as impurities	15 ppm		DIN 54231:2005
569-61-9	C.I. Basic Red 9				
569-64-2	C.I. Basic Green 4				
2437-29-8					
10309-95-2					
548-62-9	C.I. Basic Violet 3				
632-99-5	C.I. Basic Violet 14				
2580-56-5	C.I. Basic Blue 26				
1937-37-7	C.I. Direct Black 38				
2602-46-2	C.I. Direct Blue 6				
573-58-0	C.I. Direct Red 28				
16071-86-6	C.I. Direct Brown 95				
60-11-7	4-Dimethylaminoazobenzene (Solvent Yellow 2)				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Dyes – Acid, Basic, Direct, Other, continued					
6786-83-0	C.I. Solvent Blue 4	Prohibited 50 ppm each as impurities	15 ppm		DIN 54231:2005
561-41-1	4,4'-bis(dimethylamino)-4''-(methylamino) trityl alcohol				
Dyes – Navy Blue					
118685-33-9	Component 1: C39H23ClCrN7O12S.2Na	50 ppm each as impurities	15 ppm	Navy blue colorants are regulated and prohibited from use for dyeing of textiles. (Index 611-070-00-2)	DIN 54231:2005
Not allocated	Component 2: C46H30CrN10O20S2.3Na				
Flame Retardants					
32534-81-9	Pentabromodiphenyl ether (PentaBDE)	10 ppm each	5 ppm each	Flame-retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear.	EN ISO 17881- 1:2016
32536-52-0	Octabromodiphenyl ether (OctaBDE)				
1163-19-5	Decabromodiphenyl ether (DecaBDE)				
79-94-7	Tetrabromobisphenol A (TBBP A)				
59536-65-1	Polybromobiphenyls (PBB)				
3194-55-6	Hexabromocyclododecane (HBCDD)				
3296-90-0	2,2-bis(bromomethyl)-1,3-propanediol (BBMP)				
13674-87-8	Tris(1,3-dichloro-isopropyl) phosphate (TDCPP)				
25155-23-1	Trixylyl phosphate (TXP)				
126-72-7	Tris(2,3-dibromopropyl) phosphate (TRIS)				
545-55-1	Tris(1-aziridinyl) phosphine oxide) (TEPA)				
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)				
5412-25-9	Bis(2,3-dibromopropyl) phosphate (BDBPP)				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Fluorinated Greenhouse Gases					
Various	See Regulation (EC) No 842/2006 for a complete list.	0.1 ppm each	0.1 ppm each	Not intentionally used in supply chain	Sample preparation: Purge and trap – thermal desorption or SPME Measurement: GC/MS
Formaldehyde					
50-00-0	Formaldehyde	Adults and children: 75 ppm Infant/Toddler: 16 ppm	16 ppm	Used in textiles as an anti-creasing and anti-shrinking agent. It is also often used in polymeric resins. Although very rare in apparel & footwear, composite wood materials, e.g., particle board and plywood, must comply with existing California and forthcoming US formaldehyde emission requirements (40 CFR 770). Suppliers are advised to refer to brand-specific requirements for these materials.	Textile, wood, paper: JIS L 1041-1983 A (Japan Law 112) or EN ISO 14184-1:2011 Leather: ISO 17226-1:2008 with ISO 17226-2:2008 confirmation method in case of interferences.

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Metals					
7440-36-0	Antimony (Sb)	Extractable: 30 ppm	3 ppm	Found in or used as a catalyst in polymerization of polyester, flame retardants, fixing agents, pigments and alloys.	Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017
7440-38-2	Arsenic (As)	Extractable: 0.2 ppm Total: 100 ppm	Extractable: 0.01 ppm Total: 10 ppm	Arsenic and its compounds can be used in preservatives, pesticides and defoliants for cotton, synthetic fibers, paints, inks, trims and plastics.	Extractable: Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017 Total: Textiles: DIN EN 16711-1:2016 Leather: DIN EN ISO 17072-2:2017
7440-39-3	Barium (Ba)	Extractable: 1,000 ppm	Extractable: 100 ppm	Barium and its compounds can be used in pigments for inks, plastics, surface coatings, as well as in dyeing, mordant, filler in plastics, textile finish, and leather tanning.	Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017
7440-43-9	Cadmium (Cd)	Extractable: 0.1 ppm Total: 40 ppm	Extractable: 0.05 ppm Total: 5 ppm	Cadmium compounds are used as pigments (especially in red, orange, yellow and green); as a stabilizer for PVC; and in fertilizers, biocides and paints.	Extractable: Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017 Total: Textiles, plastics, metal: DIN EN 16711-1:2016 Leather: DIN EN ISO 17072-2:2017

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Metals					
7440-47-3	Chromium (Cr)	Extractable for textiles: 2 ppm Leather footwear for Infant/Toddler: 60 ppm	Extractable: 0.5 ppm	Chromium compounds can be used as dyeing additives, dye-fixing agents, color fastness after-treatments, dyes for wool, silk and polyamide (especially dark shades) and leather tanning.	Textiles: DIN EN 16711-2:2016 Leather: EN ISO 17072-1:2011
18540-29-9	Chromium VI Screening Test	Natural leather and coated leather products Total Chromium screening test	Screening level only; if total Cr found >3 ppm, analyze for Cr(VI)	Though typically associated with leather tanning, Chromium VI also may be used in the dyeing of wool after the chroming process.	Textiles: EN 16711-1:2016 Leather: ISO 17072-2:2011
18540-29-9	Chromium VI	Leather: 3 ppm Knitted textiles for Infant/Toddler: 0.5 ppm	Leather: 3 ppm Knitted textiles: 0.5 ppm	Though typically associated with leather tanning, Chromium VI also may be used in the dyeing of wool after the chroming process.	Textiles: DIN EN 16711-2:2016 with EN ISO 17075-1:2017 if Cr is detected Leather: EN ISO 17075-1:2017 and EN ISO 17075-2:2017 for confirmation if the extract causes interference Conditions for leather aging (optional): 24 hours, 80°C, maximum 5% relative humidity, no ventilation

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Metals					
7440-48-4	Cobalt (Co)	Extractable: Adults/Children: 4ppm Infants/toddlers: 1 ppm	Extractable: 0.5 ppm	Cobalt and its compounds can be used in alloys, pigments, dyestuff and the production of plastic buttons.	Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072- 1:2017
7440-50-8	Copper (Cu)	Extractable: Adults/children: 50 ppm Infants/Toddlers: 25 ppm	5.0 ppm	Copper and its compounds can be found in alloys and pigments, and in textiles as an antimicrobial agent.	Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072- 1:2017
7439-92-1	Lead (Pb)	Extractable: Adults and Children: 1 ppm Infant/Toddler: 0.2 ppm Total: 90 ppm Lead in surface coating: 90 ppm Includes Children's products (up to 12 years)	Extractable: 0.1 ppm Total: 10ppm	May be associated with plastics, paints, inks, pigments and surface coatings.	Extractable: Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072- 1:2017 Total: Non-metal: CPSC- CH-E1002-08.3 Metal: CPSC- CH-E1001-08.3 Lead in paint and surface coating: CPSIA Section 101 16 CFR 1303
7439-97-6	Mercury (Hg)	Extractable: 0.02 ppm Total: 0.5 ppm	Extractable: 0.02 ppm Total: 0.1 ppm	Mercury compounds can be present in pesticides and as contaminants in caustic soda (NaOH). They may also be used in paints.	Extractable: Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017 Total: Textiles, plastics, metal: DIN EN 16711-1:2016 Leather: DIN EN ISO 17072- 2:2017

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Metals					
7440-02-0	Nickel (Ni)	Extractable: 1 ppm	0.1 ppm	Nickel and its compounds can be used for plating alloys and improving corrosion-resistance and hardness of alloys. They can also occur as impurities in pigments and alloys.	Extractable: Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017
7440-02-2	Nickel (Ni) Release	For metal items coming into direct and prolonged contact with the skin: 0.5 µg/cm ² /week Pierced part: 0.2 µg/cm ² /week Eyewear frames: 0.76 µg/cm ² /week	0.10 µg/cm ² /week		Metal parts: EN: 1811 + A1:2015 Eyewear frames: EN 16128:2015
7782-49-2	Selenium (Se)	500 ppm	50 ppm	May be found in synthetic fibers, paints, inks, plastics and metal trims.	Textiles: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2017
7440-31-5	Tin Screening (all materials)	Tin 0.1 mg/kg If Tin > 0.1 mg/kg, organotin analysis required	0.1 ppm	May be found in metal items, coatings, polymers, paints and adhesives.	Textiles, plastics, polymers: EN 16711-1:2016 Leather: ISO 17072-2:2011

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Monomers					
100-42-5	Styrene	500 ppm	50 ppm	Styrene is a precursor for polymerization and may be present in various styrene-copolymers like plastic buttons.	GC/MS Headspace 120°C for 45 minutes Extraction in Methanol GC/MS, sonication for 60 minutes at 60°C
75-01-4	Vinyl Chloride	1 ppm Nike prohibits the use of PVC in all materials and products.	1 ppm	Vinyl Chloride is a precursor for polymerization and may be present in various PVC materials like prints, coatings, flip flops, and synthetic leather.	EN ISO 6401:2008
N-Nitrosamines					
62-75-9	N-nitrosodimethylamine (NDMA)	0.5 ppm each	0.5 ppm each	Can be formed as by-product in the production of rubber.	GB/T 24153-2009: determination using GC/MS with LC/MS/MS verification if positive. Alternatively, LC/MS/MS may be performed on its own. prEN 19577:2017
55-18-5	N-nitrosodiethylamine (NDEA)				
621-64-7	N-nitrosodipropylamine (NDPA)				
924-16-3	N-nitrosodibutylamine (NDBA)				
100-75-4	N-nitrosopiperidine (NPIP)				
930-55-2	N-nitrosopyrrolidine (NPYR)				
59-89-2	N-nitrosomorpholine (NMOR)				
614-00-6	N-nitroso N-methyl N-phenylamine (NMPPhA)				
612-64-6	N-nitroso N-ethyl N-phenylamine (NEPhA)				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Organotin Compounds					
	See also Tin Screening in Metals section				
Various	Dibutyltin (DBT)	1 ppm	0.1 ppm each	Class of chemicals combining Tin and Organics such as butyl and phenyl groups. Organotins are predominantly found in the environment as antifoulants in marine paints, but they can also be used as biocides (e.g., antibacterials), catalysts in plastic and glue production, and heat stabilizers in plastics/rubber. In textiles and apparel, Organotins are associated with plastics/rubber, inks, paints, metallic glitter, polyurethane products and heat-transfer material.	CEN ISO/TS 16179:2012
Various	Diocetyltn (DOT)	1 ppm = Pass >1-50 ppm = Warning range; follow up required >50 ppm = Do not ship			
Various	Monobutyltin (MBT)	1 ppm			
Various	Tricyclohexyltin (TCyHT)				
Various	Trimethyltin (TMT)				
Various	Triocetyltn (TOT)				
Various	Tripropyltin (TPT)				
Various	Tributyltin (TBT)	0.5 ppm each			
Various	Triphenyltin (TPhT)				
Ortho-phenylphenol					
90-43-7	Ortho-phenylphenol (OPP)	1,000 ppm	100 ppm	OPP can be used for its preservative properties in leather or as a carrier in dyeing processes.	1 M KOH extraction, 12-15 hours at 90 °C, derivatization and analysis § 64 LFGB B 82.02-08 or DIN EN ISO 17070:2015

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Ozone-depleting Substances					
Various	See Regulation (EC) No 1005/2009 for a complete list.	Prohibited	Varies (typically, 5ppm each)	Ozone-depleting substances have been used as a foaming agent in PU foams as well as a dry-cleaning agent and are prohibited from use.	Varies
pH – Acidic & Alkaline Substances					
Various	pH-value	Textiles: 4.0 - 7.5 Leather: 3.5 - 7.0	Not applicable	<p>The pH-value is a characteristic number, ranging from pH 0 to pH 14, indirectly showing the content of acidic or alkaline substances in a product.</p> <p>pH-values below 7 indicate sources of acidic substances and values above 7 indicate sources of alkaline substances. To avoid irritation or chemical burns to skin the pH-value of products shall be in the range of human skin with about pH 5.5.</p> <p>Limits cited comply with global regulations for all products.</p>	Textiles: EN ISO 3071:2006 Leather: EN ISO 4045:2008

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Perfluorinated & Polyfluorinated Chemicals (PFCs)					
	C8-based perfluorinated chemistries are prohibited from use on any Nike material or product.				
2795-39-3	Perfluorooctane Sulfonate (PFOS)	All materials with a repellent finish applied: 1 µg/m² each	1 µg/m² each	PFOA and PFOS may be present as unintended byproducts in long- or short- chain commercial water-, oil- and stain- repellent agents.	CEN/TS 15968:2014
3825-26-1	Perfluorooctanoic Acid (PFOA) & its salts & esters			PFOA may also be used in polymers like Polytetrafluoroethylene (PTFE)	
Pesticides, Agricultural & Residual					
Various	Refer to list of pesticides in Appendix A of the AFIRM RSL. http://afirm-group.com/afirm_rsl	0.5 ppm each	Varies	May be found in natural fibers, primarily cotton and leather.	Natural fibers: ISO 15913/DIN 38407 F2 or EPA 8081/EPA 8151A BVL L 00.00- 34:2010-09 Leather: ISO/DIS 22517

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Phthalates					
Nike restricts all Ortho-phthalates. The Phthalates listed are those most commonly used and regulated across industry sectors.					
28553-12-0	Di-Iso-nonylphthalate (DINP)	500 ppm each Total: 1,000 ppm Please review the information regarding the REACH SVHC list and California Proposition 65 list at the beginning of the RSL.	50 ppm each	Esters of Ortho-phthalic acid (Phthalates) are a class of organic compound commonly added to plastics to increase flexibility. They are sometimes used to facilitate the molding of plastic by decreasing its melting temperature. Phthalates can be found in: <ul style="list-style-type: none"> Flexible plastic components (e.g. PVC) Print pastes Adhesives Plastic buttons Plastic sleeveings Polymeric coatings 	Sample preparation: CPSC-CH-C1001-09-3 Measurement: Textile: GC-MS, EN ISO 14389:2014 Leather: GC-MS
117-84-0	Di-n-octylphthalate (DNOP)				
117-81-7	Di(2-ethylhexyl)-phthalate (DEHP)				
26761-40-0	Diisodecylphthalate (DIDP)				
85-68-7	Butylbenzylphthalate (BBP)				
84-74-2	Dibutylphthalate (DBP)				
84-69-5	Diisobutylphthalate (DIBP)				
84-75-3	Di-n-hexylphthalate (DnHP)				
84-66-2	Diethylphthalate (DEP)				
131-11-3	Dimethylphthalate (DMP)				
131-18-0	Di-n-pentyl phthalate (DPENP)				
84-61-7	Dicyclohexyl phthalate (DCHP)				

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement	
Polycyclic Aromatic Hydrocarbons (PAHs)						
83-32-9	Acenaphtene	No individual restriction	Total: 10 ppm	0.2 ppm each	PAHs are natural components of crude oil and are common residues from oil refining. PAHs have a characteristic smell similar to that of car tires or asphalt. Oil residues containing PAHs are added to rubber and plastics as a softener or extender and may be found in rubber, plastics, lacquers and coatings. PAHs are often found in the outsoles of footwear and in printing pastes for screen prints. PAHs can be present as impurities in Carbon Black. They also may be formed from thermal decomposition of recycled materials during reprocessing.	AFPS GS 2014
208-96-8	Acenaphthylene					
120-12-7	Anthracene					
191-24-2	Benzo(g,h,i)perylene					
86-73-7	Fluorene					
206-44-0	Fluoranthene					
193-39-5	Indeno(1,2,3-cd) pyrene					
91-20-3	Naphthalene ¹					
85-01-8	Phenanthrene	1 ppm each				
129-00-0	Pyrene					
56-55-3	Benzo(a)anthracene					
50-32-8	Benzo(a)pyrene					
205-99-2	Benzo(b)fluoranthene					
192-97-2	Benzo[e]pyrene					
205-82-3	Benzo[j]fluoranthene					
207-08-9	Benzo(k)fluoranthene					
218-01-9	Chrysene					
53-70-3	Dibenzo(a,h)anthracene					

¹ Dispersing agents for textile dyes may contain high residual Naphthalene concentrations due to the use of low-quality Naphthalene derivatives (e.g., poor-quality Naphthalene Sulphonate Formaldehyde condensation products).

NIKE RESTRICTED SUBSTANCES LIST

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Volatile Organic Compounds (VOCs)					
71-43-2	Benzene	5 ppm	5 ppm	<p>These VOCs should not be used in textile auxiliary chemical preparations.</p> <p>They are also associated with solvent-based processes such as solvent-based Polyurethane coatings and glues/adhesives.</p> <p>They should not be used for any kind of facility cleaning or spot cleaning.</p>	<p>For general VOC screening: GC/MS headspace 120 °C, 45 minutes.</p> <p>Except for DMAC: DIN CEN ISO/TS 16189:2013</p>
75-15-0	Carbon Disulfide	Total: 1,000 ppm	20 ppm each		
56-23-5	Carbon tetrachloride				
67-66-3	Chloroform				
108-94-1	Cyclohexanone				
107-06-2	1,2-Dichloroethane				
75-35-4	1,1-Dichloroethylene				
127-19-5	Dimethylacetamide (DMAC)				
76-01-7	Pentachloroethane				
100-41-4	Ethylbenzene				
630-20-6	1,1,1,2- Tetrachloroethane				
79-34-5	1,1,2,2- Tetrachloroethane				
127-18-4	Tetrachloroethylene (PERC)				
108-88-3	Toluene				
71-55-6	1,1,1- Trichloroethane				
79-00-5	1,1,2- Trichloroethane				
79-01-6	Trichloroethylene				
1330-20-7	Xylenes (meta-, ortho-, para-)				
108-38-3					
85-47-6					
106-42-3					

OTHER LIMITS & RESTRICTIONS

CAS NO.	LIST	NIKE COMPLIANCE REQUIREMENTS
Various	REACH SVHC listed chemistries www.echa.europa.eu/candidate-list-table California Proposition 65 listed chemistries www.oehha.ca.gov/proposition	Suppliers must notify Nike immediately if substances found on either of these lists are identified in materials or products.

NIKE-SPECIFIC CHEMICAL & MATERIAL RESTRICTIONS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Asbestos					
77536-66-4	Actinolite	Not detected	Not applicable Presence/absence only	No intentional uses	Microscopic examination; minimum magnification 1-250, polarized light filter attached; ratio of fiber length to diameter is at least 3:1.
12172-73-5	Amosite				
77536-67-5	Anthrophyllite				
12001-29-5	Chrysotile				
12001-28-4	Crocidolite				
77536-68-6	Tremolite				

NIKE-SPECIFIC CHEMICAL & MATERIAL RESTRICTIONS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Dioxins and Furans					
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	Group 1 Sum of Group 1: 1 µg/kg	0.1 µg/kg per congener (Dioxin or Furan)	No intentional use in Apparel or Footwear manufacturing	USEPA 8290
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran				
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran				
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	Group 2 Sum of Groups 1 and 2: 5 µg/kg			
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran				
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin				
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran				
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin				
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran				
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin				
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	Group 3 Sum of Groups 1, 2 and 3: 100 µg/kg			
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran				
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran				
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin				
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	Group 4 Sum of Group 4: 1 µg/kg			
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin				
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran				
109333-34-8	1,2,3,7,8-Pentabromodibenzo-p-dioxin	Group 5 Sum of Groups 4 and 5: 5 µg/kg			
131166-92-2	2,3,4,7,8-Pentabromdibenzofuran				
67733-57-7	2,3,7,8-Tetrabromodibenzofuran				
50585-41-6	2,3,7,8-Tetrabromodibenzo-p-dioxin				
110999-44-5	1,2,3,4,7,8-Hexabromodibenzo-p-dioxin				
110999-45-6	1,2,3,6,7,8-Hexabromodibenzo-p-dioxin				
110999-46-7	1,2,3,7,8,9-Hexabromodibenzo-p-dioxin				
107555-93-1	1,2,3,7,8-Pentabromodibenzofuran				

NIKE-SPECIFIC CHEMICAL & MATERIAL RESTRICTIONS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement
Polyvinyl Chloride (PVC)					
9002-86-2	Polyvinyl Chloride (PVC)	Prohibited from use in all products and all materials.	Due to complexity of analysis, Nike defines detection limit as 10%.	Plastic items, flexible plastics, screen-printing inks.	Two tests for confirmation: Beilstein's Test* Burning test for the presence of chlorine. Infrared Analysis* Spectroscopy (IR) with or without solvent extraction. Positive results for both tests indicate PVC. * PVC test methods are qualitative, therefore the 10% limit is estimated sensitivity.
UV Inhibitors					
3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol	1,000 ppm each	100 ppm each	UV inhibitors may be used in a variety of polymer formulations to control discoloration or physical property changes induced by UV light	Solvent Extraction Hexane/ Dichloroethane (1:1), GC-MS analysis
3864-99-1	2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol				
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol				
36437-37-3	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)				

A background image showing three runners in motion on a city street. The runner in the foreground is a woman with dark hair, wearing a white puffer vest over a black long-sleeved shirt and grey leggings with black stripes. She is running towards the camera. Behind her, two other runners are visible, slightly out of focus. The scene is brightly lit, suggesting a sunny day.

NIKE RSL IMPLEMENTATION GUIDANCE

OVERVIEW

TEST REQUEST FORM

APPROACH

TEST SAMPLES

MATERIALS TESTING MATRIX

MATERIAL-SPECIFIC IMPLEMENTATION GUIDANCE

COMPLYING WITH NIKE RSL REQUIREMENTS

OVERVIEW

All materials, items and finished goods manufactured for Nike, Nike affiliates or Licensees must comply with the requirements in this document no later than 90 days from the release date listed on page 39.

This document is subject to updates. If requirements change, we will issue an effective date that allows suppliers time to comply.

The most up-to-date version of this document can be found at:
www.nikeincchemistry.com/restricted-substance-list

All RSL test samples must be sent to Nike-approved laboratories, which are listed at the end of the Playbook. Each material will be tested against the Nike RSL Test Package for that material.

TEST REQUEST FORM

The Nike RSL Test Request Form (TRF) must accompany all samples sent to the lab to ensure that testing and reporting meet Nike standards and to obtain the special prices negotiated on behalf of our suppliers.

Only data from Nike-approved laboratories will be accepted as proof of compliance.

Download the current TRF at
www.nikeincchemistry.com.

APPROACH

There are two testing approaches for all Nike suppliers:

1 STANDARD TESTING

Follow the implementation guidance on the following pages and send samples for testing as described.

2 DIRECTIVE TESTING

Nike may choose to implement a directive testing approach for a particular supplier. In this case, Nike RSL Teams will work directly with supplier to test specific materials in a season instead of following the sample selection criteria in this document. This directive testing approach is in addition to what the supplier feels is needed to ensure compliance, and in addition to any testing that Tier 1 factories request.

TEST SAMPLES

Test samples are selected based on material type, thickness, color and/or style. In some cases, two materials may be selected using the same criteria but are tested differently in the lab. For example, natural leather and synthetic leather are both chosen based on thickness, surface treatment and color, but lab testing is distinct for the two materials because of differing base chemistry.

To clarify which materials require which types of testing, Nike created the Materials Testing Matrix (MTM) that outlines whether “Core” or “Supplemental” testing is required for each material category.

Specific guidance detailing how to select samples for testing is included after the MTM, and is broken down by specific material type.

MATERIALS TESTING MATRIX

The testing implementation program outlined herein is the minimum required testing.

Suppliers are strongly encouraged to perform additional testing of materials against the Nike RSL limits and against related lists such as the REACH SVHC list or California Proposition 65 list.

1 CORE TESTING

A substance restricted by legislation or Nike requirements AND historically used in the manufacturing process for the specified material category.

When suppliers submit a material sample to a Nike-approved lab for testing, the lab will automatically test for any chemical listed as "Core" in the MTM.

2 SUPPLEMENTAL TESTING

A substance restricted by legislation or Nike requirements, but that is less likely to be found and not traditionally used in the manufacture of the specified material category.

Suppliers should randomly test items requiring "Supplemental" testing to ensure RSL compliance.

NOTE: Labs don't automatically test chemicals listed as Supplemental on the MTM; suppliers must request these chemical tests on the TRF.

3 TESTS NOT LISTED AS CORE OR SUPPLEMENTAL

A substance restricted by legislation or Nike requirements that:

- Has been successfully phased out of the supply chain, or
- Has not been identified as a chemistry in use for the specified material

Suppliers must still meet the RSL limits for these substances, but they are very unlikely to be found when suppliers follow proper chemicals management in the production of the specified materials.

REGARDLESS IF TESTING IS "CORE," "SUPPLEMENTAL" OR "NOT LISTED" IN THE IMPLEMENTATION GUIDANCE, ALL MATERIALS, ITEMS AND FINISHED GOODS MUST MEET THE REQUIREMENTS IN THE NIKE RSL.

MATERIALS TESTING MATRIX

RESTRICTED SUBSTANCE	NATURAL FIBERS	SYNTHETIC FIBERS Nylon, PET	NATURAL & SYNTHETIC FIBER BLENDS	PLASTICS, THERMOPLASTICS, POLYMERS EVA, PU, Rigid Plastic, TPU, Foam, Rubber	SYNTHETIC LEATHER	NATURAL LEATHER	COATED LEATHER	INKS, PAINTS, HEAT TRANSFERS Screen Print Inks	ADHESIVES	SCREENPRINT STRIKE-OFFS	SUBLIMATION PRINTS, DIGITAL PRINTS	METAL ITEMS	OTHER Rhinestones, sequins, etc.
Acetophenone & 2-Phenyl-2-Propanol				S-5									
Alkylphenols (NP, OP)	S	S	S	S	S	S	S	S	S	S	S		
Alkylphenol Ethoxylates (NPEO, OPEO)	C	C	C	C	C	C	C	C	C	C	C		
Asbestos	S	S	S										
Azo-amines	C-8	S	C-8	S	S	C-8	C-8	C-1, C-8			C-8		
Bisphenol-A				S-6									
Chlorinated Paraffin						S	S						
Chlorophenols	S		S			S	S						
Chlororganic Carriers		S	S										
Dimethylformamide (DMFa)					C		*						
Dimethylfumarate (DMFu)						S	S						
Dioxins and Furans	Prohibited												
Dyes (Acid, Basic, Direct, Other)	S	S	S	S	S	S					S		
Dyes (Disperse)		C-8	C-8	S	S	S					C-8		

MATERIALS TESTING MATRIX

RESTRICTED SUBSTANCE	NATURAL FIBERS	SYNTHETIC FIBERS Nylon, PET	NATURAL & SYNTHETIC FIBER BLENDS	PLASTICS, THERMOPLASTICS, POLYMERS EVA, PU, Rigid Plastic, TPU, Foam, Rubber	SYNTHETIC LEATHER	NATURAL LEATHER	COATED LEATHER	INKS, PAINTS, HEAT TRANSFERS Screen Print Inks	ADHESIVES	SCREENPRINT STRIKE-OFFS	SUBLIMATION PRINTS, DIGITAL PRINTS	METAL ITEMS	OTHER Rhinestones, sequins, etc.
Dyes (Navy Blue)	S	S	S	S	S	S	S	S			S		
Flame Retardants	S	S	S	S	S								
Fluorinated Greenhouse Gases	Prohibited												
Formaldehyde	C	C	C	C	S	C	C	C	C	C	C		C-3
Metals (Chromium VI)						C-4	C-4						
Metals (Extractable)	C	C	C			S-8							
Metals (Nickel Release)												C-10	C-3
Metals (Total)	S	S	S	C	C	C	C	C	C		C	C	C-3
Monomers				S-7									S-7
N-Nitrosamines				S									
Organotin Compounds	S-2	S-2	S-2	C-2	C-2	C-2	C-2	C-2	C-2		C-2		
Ortho-phenylphenol						S	S						
Ozone-depleting Substances	Prohibited												
Pesticides, Agricultural	S		S										

MATERIALS TESTING MATRIX

RESTRICTED SUBSTANCE	NATURAL FIBERS	SYNTHETIC FIBERS Nylon, PET	NATURAL & SYNTHETIC FIBER BLENDS	PLASTICS, THERMOPLASTICS, POLYMERS EVA, PU, Rigid Plastic, TPU, Foam, Rubber	SYNTHETIC LEATHER	NATURAL LEATHER	COATED LEATHER	INKS, PAINTS, HEAT TRANSFERS Screen Print Inks	ADHESIVES	SCREENPRINT STRIKE-OFFS	SUBLIMATION PRINTS, DIGITAL PRINTS	METAL ITEMS	OTHER Rhinestones, sequins, etc.
Perfluorinated & Polyfluorinated Chemicals	PFOA and PFOS Core testing for materials with water-repellent finishes												
pH	S	S	S			S	S						
Phthalates				C	C		C	C	C	C	C		C-3
Polycyclic Aromatic Hydrocarbons (PAHs)				S	S			S					
Polyvinyl Chloride (PVC)				C	S		C	C	C	C	C		C-3
UV Inhibitors (UV 320, 327, 328, 350)				C-9	C-9								
Volatile Organic Compounds (VOCs)				S	S			S	S				
C = Core Testing	C-1 = Screenprint ink only							C-8 = Testing for dyes is not Core Testing on white textile materials; Supplemental Testing only					
	C-2 = If Tin in sample >0.1 mg/kg							C-9 = Core Testing on Polyurethane foam materials					
	C-3 = Core tests vary by material type; consult with lab or Nike RSL team							C-10 = Only Metal items coming into skin contact					
	C-4 = If total Cr screening is > 3 mg/kg, analyze for Cr(VI)							* Suggest adding as an additional test for coated leather; to add, select as an individual test at the bottom of the TRF					
S = Supplemental Testing	S-2 = If Tin in sample >0.1 mg/kg							S-7 = Styrene in ABS materials					
	S-5 = EVA foams only							S-8 = Infant/Toddler leather Footwear only					
	S-6 = Food- and mouth-contact items only												

NOTE: Additional testing packages are available for items containing multiple material types, such as woven crests that may contain synthetic fibers, natural fibers, metallic threads and adhesives. These packages are available on the Test Request Form and are used only in very specific cases.

MATERIAL-SPECIFIC IMPLEMENTATION GUIDANCE

TEXTILES: NATURAL, SYNTHETIC & BLENDED FIBERS

The Nike RSL defines unique textiles as a combination of:

- **Material**
- **Color**
- **Construction, such as warp or weft**
- **Applied chemistries or finishes**
- **Material vendor location**

In addition, each textile type (natural, synthetic or blend compositions) in combination with a chemical finish is considered a unique material.

A difference or change in any of these properties means the textile has changed and may be subject to further testing.

For example, 100% cotton, 100% polyester, 60/40 cotton/poly, 50/50 cotton/poly, etc. are all unique and subject to routine and/or random testing.

Each season, suppliers must test 5% of all natural, synthetic and blended fibers, or materials composed of these fibers, on the basis of unique material/color combinations, choosing materials with the highest production volumes.

EXAMPLE: A supplier producing 100 unique material/color combinations in a season must test their top five unique material/color combinations by production volumes. This testing guidance is summarized in Figure 1 and Table 3.

NOTE: For any calculated value, the result must be rounded up to the highest whole number; for example, 45 material/color combinations x 5% = 2.25, which would require three total tests (not two).

When ranking by current-season production volume isn't possible:

- Calculate the previous season's number of materials to use as a basis for the current season.
- Focus testing on higher-volume materials that haven't already passed RSL testing within the previous calendar year.

For guidance on items produced from yarn to finished good without a material phase, contact: RSLSupport@nike.com

Figure 1.

TESTING GUIDANCE FOR TEXTILES: NATURAL, SYNTHETIC & BLENDED FIBERS



ROUTINE TESTING

All Apparel, Footwear and Equipment materials and all denim require testing. Select materials at 5% of total number of unique material/color combinations on a seasonal basis, as shown in Table 3.

RANDOM TESTING

Vendors and factories should also randomly verify Apparel, Footwear and Equipment materials in any color.

A NOTE ABOUT DENIM

Denim materials must be tested after any garment treatment, including but not limited to overdyeing, sanding and acid washing. This test may be performed on samples that represent production-ready materials.

Table 3.

CALCULATING THE NUMBER OF TEST SAMPLES FOR TEXTILES

MATERIAL IDENTIFICATION	LINEAR YARDS PRODUCED	TOTAL NUMBER OF TESTS REQUIRED	TEST THIS MATERIAL?
Unique material/color combination 1	50,000	<ul style="list-style-type: none">Supplier produces 100 unique material/color combinations, as shown in Material Identification column5% Testing Requirement = Five (5) Total TestsChoose top five materials by production volume, as shown in Linear Yards Produced column	Yes
Unique material/color combination 2	25,000		Yes
Unique material/color combination 3	40,000		Yes
Unique material/color combination 4	15,000		Yes
Unique material/color combination 5	60,000		Yes
Unique material/color combination 6	2,200		No
Unique material/color combination 7	1,000		No
Materials 8–100	20,000 combined		No



NATURAL LEATHER, COATED LEATHER & SYNTHETIC LEATHER

The Nike RSL defines unique natural leather and synthetic leather as a combination of:

- **Color**
- **Thickness**
- **Polymer coating – number of coatings and thickness of the coating**
- **Material vendor location**

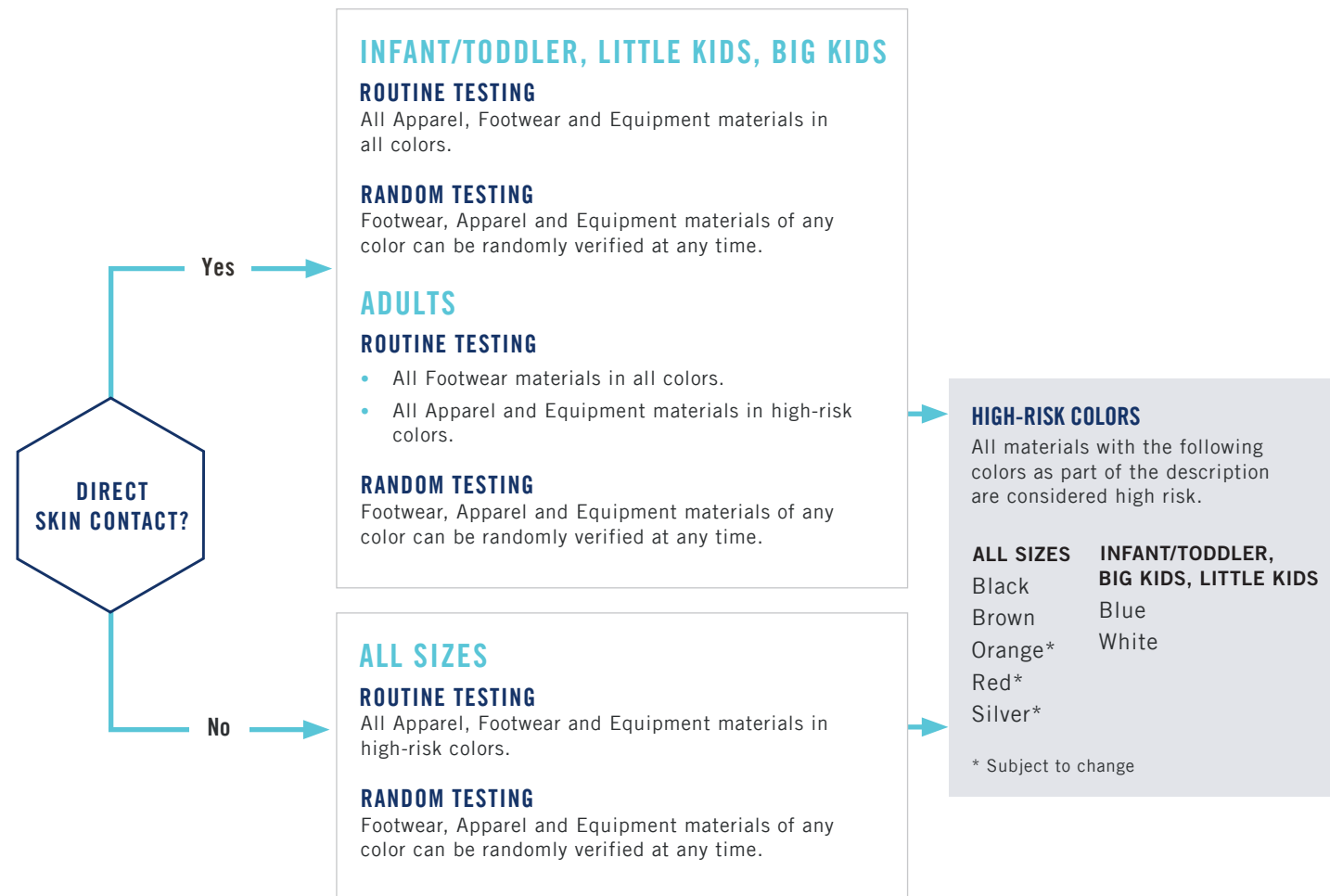
Coated leather is defined as any leather with a Polyurethane or other Polymer coating applied.

A difference in any of these properties means the natural leather, coated leather or synthetic leather has changed and may be subject to testing.

In cases where texture or embossing is the only unique difference (chemistry, thickness, color, etc. are the same), one RSL test is sufficient.

Figure 2.

TESTING GUIDANCE FOR NATURAL LEATHER, COATED LEATHER & SYNTHETIC LEATHER



INKS, PAINTS & ADHESIVES

Nike considers inks, paints and adhesives to be at high risk for RSL non-compliance. These materials **MUST** be tested prior to production in an “as applied” state; for example, ink that has cured, paint that has dried, etc.

All inks, paints and adhesives must be tested annually and receive an RSL PASS result prior to application to any product, and must be retested every time a change is made to the color system formulation or on an annual basis, whichever comes first.

A COLOR SYSTEM

For Nike RSL purposes, a color system is defined as the set of base colors, pigments and all additives used to mix colors. (See Figure 4.) Once a color system is RSL-compliant – and received an RSL PASS – no substitutions can be made to any component without testing the new component.

For testing, all color system components must be in the “as-applied” state. This means that ink and paint systems must be cured and dried following routine practices as used in production before sending to labs for testing. Labs are not allowed to perform drying and curing steps.

- Material must be dried at the same rate and temperature as will be used for the final product
- Material should be applied on a surface that allows material to be scraped or peeled off: a glass plate or foils are preferable. Refer to the sidebar on this page for specific guidance on preparing color system samples for submission to laboratories
- Strike-off testing is also required, as covered in the next section

Figure 4.

REQUIRED COLOR SAMPLE TESTING FOR ALL INKS, PAINTS & PIGMENTS



- Composite ink testing is not allowed
- ALL base color samples must undergo annual testing
- Each complete base color sample – including bases, pigments and additives – must undergo initial testing before use in any Nike product and receive an RSL PASS
- Shades or color combinations do not need to be retested once all base color samples in use have received an RSL PASS (within one year)
- Base color sample must be retested whenever a component – bases, pigments and additives – of the formula changes

PREPARING BASE COLOR SAMPLES FOR SUBMISSION TO LABORATORIES

The loading of the pigment in the base must be at 15%, regardless of the amount used in production. Only one pigment may be added. Any additives used in the application must also be added prior to the curing process.

Ready-to-use (RTU) ink products must be submitted as-is, with no changes to the formulation. All products must be cured and dried in a manner consistent with the ink manufacturer's recommendations or the actual conditions used in production.

It is not acceptable to submit a composite ink sample (more than one pigment in a base color sample).

UNCURED INK SAMPLES

If a supplier is unable to provide a cured ink sample to a lab, please reach out to the appropriate RSL lead listed on st the end of the Playbook.

SCREEN PRINT INKS, HEAT TRANSFERS & SIMILAR EMBELLISHMENTS

Nike considers screen print inks, heat transfers and similar embellishments to be at high risk for RSL non-compliance.

They must be tested annually and receive an RSL PASS result prior to application to any product. They must be retested every time a change is made to the color system formulation or on an annual basis, whichever comes first.

STRIKE-OFF TESTING

For screen prints, heat transfers and similar embellishments, the factory must test strike-offs at a rate of 2% by style (not color). Selected samples should be dark-colored or fluorescent prints. See Figure 5 for guidance.

EXAMPLE: A factory makes 100 different styles. The factory must test 2% of styles produced (100 styles x 2% = 2 strike-off tests). The two styles with the highest production volume are chosen for testing. If greater than 50 styles are produced, a minimum of one strike-off test is required.

Figure 5
REQUIRED STRIKE-OFF TESTING OF TOP 2% OF STYLES BY PRODUCTION VOLUME

DEFINITION OF STYLES



1 Apparel style with 3 colorways



3 Apparel styles



1 Equipment style with 4 colorways



4 Equipment styles

Choose the top 2% of styles by production volume for strike-off testing, rotating colorways. Style numbers should not include the color code.

TOP 2% OF STYLES BY PRODUCTION VOLUME

STYLES	PRODUCTION VOLUME	STRIKE-OFF TEST REQUIRED FOR THIS STYLE?
Style 1	50,000	Yes
Style 2	500	No
Style 3	20,000	No
Style 4	30,000	Yes
Style 5	40,000	Yes
Styles 6 – 148	400	No

In this example, a factory produces 148 styles:
148 styles x 2% = 2.96

Top 3 styles by production volume must undergo RSL testing

DIGITAL & SUBLIMATION PRINTS

Digital and sublimation prints must be tested once per year. The sample should be prepared by printing each color individually on an RSL-compliant fabric representative of production material. The samples must be applied with production transfer paper and on production equipment.

When submitting sublimation prints to the lab, print each base color independently on three A4-sized sheets of fabric.

Example: If four base colors are used for sublimation printing, print twelve A4-sized sheets, three for each base color.

For digital prints, print at least 10 grams of ink for each base color. Prints should be submitted for testing fully cured and dried on a glass slide (preferred) or on an RSL-compliant material.

DIMENSION WELDS

All dimension welds are considered high risk and require testing. No substitutions can be made unless the substitute is also compliant (proven by testing).

METAL PARTS

All metal items are considered high risk and each component must be tested annually or when a base metal is changed.

OTHER: RHINESTONES, SEQUINS, ETC.

These materials, due to the reliance on metal and plastic, are generally considered very high risk for RSL non-compliance. Each component must be tested annually or when a base metal is changed. Testing will vary based upon material type and use. Consult the testing lab or the Nike RSL team for guidance.

PROMOTIONAL GIVEAWAY ITEMS

All promotional giveaway items bearing a Nike or Affiliate brand logo must meet the requirements listed in the Nike RSL and may be subject to further requirements.

Promotional giveaway items should be tested according to the base material and intended use of the item. Many promotional giveaway items fall into the categories described within this document and should be tested accordingly. This includes items such as customized T-shirts (screenprint), toys, electronics and electrical equipment (EEE) such as luminescent armbands, and various objects (such as water bottles, bracelets, necklaces and dog tags) that come in direct contact with the skin or mouth (leather, plastics, rubber and metal).

If you have a promotional giveaway item that does not clearly fit into a category within the Nike RSL or need help getting the correct (local) requirements, please contact the RSLSupport@nike.com for assistance with the verification process.

In addition to RSL testing, promotional giveaway items require evaluation for general legal compliance. To obtain this evaluation, please contact 1st-product.safety.global@nike.com.

TOYS, ELECTRONIC & ELECTRICAL EQUIPMENT, & FOOD CONTACT MATERIALS

The testing requirements for toys, electronic and electrical equipment and food contact materials differ from the testing requirements of general Nike Apparel, Footwear and Equipment products. Please refer to the specific RSL lists on the following pages.

Because these products may also require technical files or additional labeling, please consult your Nike RSL contact when developing a product that has the characteristics of a toy, electronic or food-contact material.

TEST ADMINISTRATION

The testing specified above applies to both new and existing materials. All testing must be performed on production-ready material – material identical to that used in actual product. During the time period in which materials or products are undergoing RSL testing, they can't be shipped or used in production until Nike receives a passing RSL report.

If a material fails RSL testing, all materials affected by that failure must be immediately quarantined until product disposition occurs and the failure resolution process is completed with Nike. Only materials that pass both Adult and Kid (Infant / Toddler, Little Kids and Big Kids) RSL testing requirements can be used for products intended for children, including any "take down" product.

Prior to production, suppliers must provide factories with test results proving compliance with the Nike RSL. All testing must be performed at a Nike-approved lab. All samples sent to the lab must be accompanied by a Test Request Form (TRF), available at www.nikeincchemistry.com. Test results will be valid for one year from the RSL test report date unless otherwise stated. Nike reserves the right to request testing documentation at any time for any material.

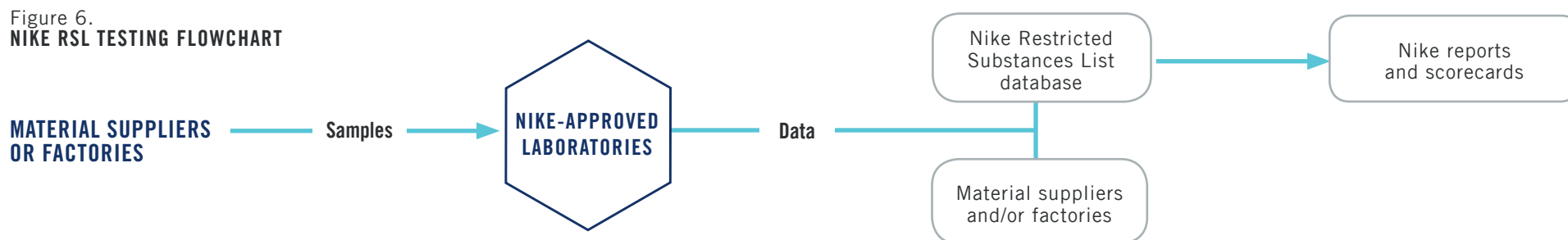
HANDLING RSL DATA

As shown in Figure 6, Nike-approved labs will conduct the tests and send all results to Nike for inclusion in the online RSL database.

The Nike RSL database will store data and create test reports that the lab will distribute to the supplier.

Nike will use the database to generate supplier scorecards and other evaluation reports.

Figure 6.
NIKE RSL TESTING FLOWCHART



FAILURE RESOLUTION

Vendors must perform due diligence to ensure that all shipped materials meet Nike RSL requirements. In the event that a factory/supplier-initiated test results in a FAIL or KID FAIL rating, there are a number of consequences:

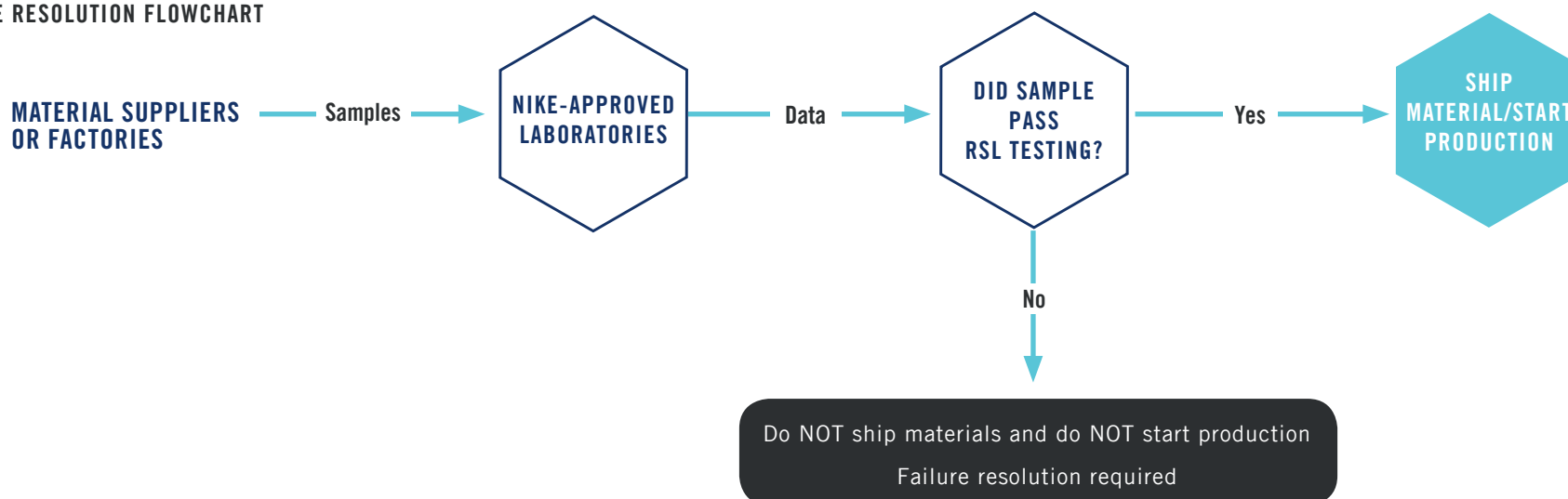
- The factory/supplier is responsible and must bear the cost for all material returns and replacements. Failing materials must be quarantined immediately.
- The factory/supplier must complete the Nike RSL Failure Resolution Form (FRF) or Quarantine Report Form (QRF), which is attached to each test report issued with a FAIL or KID FAIL rating. The FRF and the QRF collect information to determine root cause as well as to create short- and long-term corrective action plans to help remediate issues. The completed FRF or QRF should be submitted to the appropriate Nike contact listed in the "Testing and Contact Information" section of both forms.
- When the cause of the failure has been remediated, the material must be retested.

NOTE: Retesting should only be performed after receiving instruction to do so from Nike or an Affiliate. This instruction will be given after the failure resolution process is completed. Retesting may require a full or partial test package, depending on the corrective action plan.

If a vendor is deemed unreliable due to multiple material RSL failures, Nike, at its sole discretion, may place that vendor on probationary status. This will result in increased testing requirements.

If a vendor on probation continues to supply non-compliant material, Nike and/or affiliates may initiate further measures at its sole discretion. Measures include termination of all business dealings with the vendor.

Figure 7.
FAILURE RESOLUTION FLOWCHART





RESTRICTED SUBSTANCES LIST

ELECTRICAL & ELECTRONIC COMPONENTS

OVERVIEW

NIKE RESTRICTED SUBSTANCES LIST FOR ELECTRONICS



RSL REQUIREMENTS FOR ELECTRONICS

OVERVIEW

Electrical and electronic components are defined as any component dependent on electric current or electromagnetic fields to function properly.

All components must meet the limits of the Nike RSL for Electronics.

Products containing embedded electronic items and/or electrical components must meet all standard Nike RSL requirements, in addition to RSL requirements for electronics.

Any portion of an electrical item that comes into contact with the end user must meet the lowest limit for a given chemistry on the standard RSL or the electronics RSL.

Electrical components that don't come into contact with the end user must apply the RSL for Electronics.

In addition to chemical restrictions, the Nike Product Safety Team should perform a review of the specific item.

Contact the team at lst-product.safety.global@nike.com.

**ELECTRICAL AND
ELECTRONIC
COMPONENTS
ARE DEFINED AS
ANY COMPONENT
DEPENDENT UPON
ELECTRICAL CURRENT
OR ELECTROMAGNETIC
FIELDS TO FUNCTION
PROPERLY.**

NIKE RESTRICTED SUBSTANCES LIST FOR ELECTRONICS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use)	POTENTIAL USES Textile Processing for Apparel & Footwear	SUITABLE TEST METHOD Sample Preparation & Measurement		
Metals in Battery or Button Cell							
	End-users must be able to easily remove batteries contained in consumer products.						
7440-43-9	Cadmium	5 mg/kg	0.5 mg/kg		Nike in-house method		
7439-92-1	Lead	1,000 mg/kg	100 mg/kg		Aqua regia/hydrogen peroxide digestion, followed by ICP/ VGA-AAS analysis		
7439-97-6	Mercury	Prohibited	0.5 mg/kg				
Electrical & Electronic Equipment							
	Applicable to equipment that is dependent on electric currents or electromagnetic fields to function properly; is designed for use with a voltage rating not exceeding 1000 volt a.c. or 1500 volt for d.c.; and falls under the categories set out in Annex 1A of 2002/96/EC. Sampling and analysis are based on the test request requirements.						
85-68-7	Butyl benzyl phthalate (BBP)	1,000 mg/kg	50 mg/kg		IEC 62321, Ed.1, 2008		
84-74-2	Dibutyl phthalate (DBP)	The restriction of phthalates DEHP, BBP, DBP and DiBP shall not apply to cables or spare parts for the repair, reuse, updating of functionalities or upgrading of capacity of EEE placed on the market before July 22, 2019.					
117-81-7	Di(ethylhexyl) phthalate (DEHP)						
84-69-5	Di-isobutyl phthalate (DiBP)						
7440-43-9	Cadmium		100 mg/kg			10 mg/kg	
7440-47-3	Chromium (VI)	1,000 mg/kg	100 mg/kg				
7439-92-1	Lead	1,000 mg/kg	100 mg/kg				
7439-97-6	Mercury	1,000 mg/kg	100 mg/kg				
Various	PBDEs and PBBs	1,000 mg/kg	100 mg/kg				

ENGINEERED
TO THE EXACT SPECIFICATIONS
OF CHAMPIONSHIP ATHLETES

MA 2355673B



NIKECONNECT

A close-up photograph of a person's arm, heavily tattooed, holding an orange basketball with a black Nike swoosh. The background is a blurred outdoor basketball court with a green fence and a basketball hoop visible in the distance.

RESTRICTED SUBSTANCES LIST

TOYS

OVERVIEW

TESTING GUIDANCE FOR TOYS

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

RSL REQUIREMENTS FOR TOYS

OVERVIEW

A toy is defined as any product or material with play value intended for children less than 14 years of age. Testing requirements apply to products both sold and given away. Toys must meet the limits of the Nike RSL for Toys, Toy Components and Toy Materials as well as the Nike RSL.

Toys must also pass strict mechanical and safety testing beyond these chemical requirements. Always consult with your Nike product safety contact before testing.

TESTING GUIDANCE FOR TOYS

Testing Guidance for Toys (see the table on the next page) specifies toys, toy components and toy materials, as well as applicable chemicals that should not be released above the limits stated.

This table is based on the requirements of EN71-3:2013 and EN71- 9:2005, in association with EN71-10:2005 and EN71-11:2005.

In addition, the Lead Poisoning Prevention Act (LPPA) of the U.S. State of Illinois enforces a warning label provision if the lead content of paint on toys exceeds 40 mg/kg but is within the U.S. federal limit of 90 mg/kg (for surface coating in CSPIA).

**A TOY IS DEFINED AS
ANY PRODUCT OR
MATERIAL WITH PLAY
VALUE INTENDED FOR
CHILDREN LESS THAN
14 YEARS OF AGE.**

TESTING GUIDANCE FOR TOYS

SPECIFIC TOY OR TOY COMPONENT	MATERIAL	FLAME RETARDANTS	COLORANTS	PRIMARY AROMATIC AMINES	MONOMERS	SOLVENTS – MIGRATION	SOLVENTS – INHALATION	WOOD PRESERVATIVES	PRESERVATIVES	PLASTICIZERS	HEAVY METALS
Toys intended to be mouthed by children of less than three years of age	Polymeric				X	X				X	X
Toys or accessible components with a mass of 150 g or less, intended to be played with in the hands by children of less than three years of age	Polymeric				X	X				X	X
	Wood		X	X				X			X
	Paper		X	X							X
Toys or accessible components intended for children of less than three years of age	Textile	X	X	X							X
	Leather		X	X					X		X
Mouthpiece components of mouth-actuated toys	Polymeric				X	X				X	X
	Wood		X	X				X			X
	Paper		X	X							X
Inflatable toys with a surface area of greater than .5 m ² when fully inflated	Polymeric						X				X
Toys worn over the mouth and nose	Polymeric				X		X				X
	Textile		X	X			X				X
	Paper		X	X							X
Toys a child can enter	Polymeric										X
	Textile										X
Components of graphic instruments sold as toys or used in toys	Polymeric				X					X	X

TESTING GUIDANCE FOR TOYS

SPECIFIC TOY OR TOY COMPONENT	MATERIAL	FLAME RETARDANTS	COLORANTS	PRIMARY AROMATIC AMINES	MONOMERS	SOLVENTS – MIGRATION	SOLVENTS – INHALATION	WOOD PRESERVATIVES	PRESERVATIVES	PLASTICIZERS	HEAVY METALS
Toys and accessible components of toys for indoor use	Wood							X			X
Toys and accessible components of toys for outdoor use	Wood							X			X
Toys and components of toys that mimic food	Polymeric				X	X				X	X
Solid toy materials intended to leave a trace	All		X	X							X
Colored accessible liquids in toys	Liquid		X	X					X		X
Non-colored accessible liquids in toys	Liquid								X		X
Modeling clay, play clay and similar	All		X	X					X		X
Balloon-making compounds	All		X	X			X				X
Imitation tattoos with adhesive	All		X	X		X			X		X
Imitation jewelry	Polymeric		X	X	X	X				X	X
	Metal										X

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis	SUITABLE TEST METHOD Sample Preparation & Measurement
Aromatic Amines				
92-87-5	Benzidine	Not detected For each restricted amine * See laboratory reporting limit for test method detection limit	5 mg/kg	EN71-11
91-59-8	2-Naphthylamine			
106-47-8	4-Chloroaniline			
91-94-1	3,3'-Dichlorobenzidine			
119-90-4	3,3'-Dimethoxybenzidine			
119-93-7	3,3'-Dimethylbenzidine			
95-53-4	o-Toluidine			
90-04-0	o-Anisidine (2-methoxyaniline)			
62-53-3	Aniline			
Dyes				
2475-45-8	Disperse Blue 1	Not detected For each restricted dye * See laboratory reporting limit for test method detection limit	10 mg/kg	EN71-11
2475-46-9	Disperse Blue 3			
12223-01-7	Disperse Blue 106			
61951-51-7	Disperse Blue 124			
2832-40-8	Disperse Yellow 3			
730-40-5	Disperse Orange 3			
12223-33-5, 13301-61-6	Disperse Orange 37/76			
2872-52-8	Disperse Red 1			
60-09-3	Solvent Yellow 1			
60-11-7	Solvent Yellow 2			
97-56-3	Solvent Yellow 3			
569-61-9	Basic Red 9			
8004-87-3	Basic Violet 1			
548-62-9	Basic Violet 3			
3761-53-3	Acid Red 26			
1694-09-03	Acid Violet 49			

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis	SUITABLE TEST METHOD Sample Preparation & Measurement
Elastomers				
	Toys intended for use by children less than 36 months of age or intended to be placed in the mouth.			
1116-54-7	N-nitrosodiethanolamine	N-nitrosamines ≤ 0.01 mg/kg N-nitrosatable substance ≤ 0.1 mg/kg	N-nitrosamines ≤ 0.01 mg/kg N-nitrosatable substance ≤ 0.1 mg/kg	EN71-12
62-75-9	N-nitrosodimethylamine			
55-18-5	N-nitrosodiethylamine			
621-64-7	N-nitrosodipropylamine			
601-77-4	N-nitrosodiisopropylamine			
924-16-3	N-nitrosodibutylamine			
997-95-5	N-nitrosodiisobutylamine			
1207995-62-7	N-nitrosodiisononylamine			
59-89-2	N-nitrosomorpholine			
100-75-4	N-nitrosopiperidine			
5336-53-8	N-nitrosodibenzylamine			
614-00-6	N-nitroso-N-methyl-N-phenylamine			
612-64-6	N-nitroso-N-ethyl-N-phenylamine			
Flame Retardants				
32534-81-9	Pentabromodiphenyl ether (PentaBDE) 3-isomers	1,000 mg/kg	5 mg/kg	Solvent extraction and analysis by GC-MS or LC-MS
32536-52-0	Octabromodiphenyl ether (OctaBDE) 4-isomers	For each flame retardant sum of isomers		
1163-19-5	Decabromodiphenyl ether (DecaBDE)			
78-30-8	Tri-o-cresyl phosphate	Not detected	50 mg/kg	EN71-11
115-96-8	Tris(2-chloroethyl) phosphate	* See laboratory reporting limit for test method detection limit		

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis	SUITABLE TEST METHOD Sample Preparation & Measurement
Total Lead in Paint				
	Total Lead in paint on toys	Warning label required if lead content is greater than 40 mg/kg but less than 90 mg/kg	40 mg/kg	Nike in-house method
Metals				
		Values in parentheses refer to modeling clay, play clay and similar		ASTM F 963
7440-36-0	Antimony	60 mg/kg	5 mg/kg	
7440-38-2	Arsenic	25 mg/kg	0.5 mg/kg	
7440-39-3	Barium	1,000 mg/kg (250 mg/kg)	100 mg/kg	
7440-47-3	Chromium	60 mg/kg (25 mg/kg)	3 mg/kg	
7440-43-9	Cadmium	75 mg/kg (50 mg/kg)	25 mg/kg	
7439-92-1	Lead	90 mg/kg	50 mg/kg	
7439-97-6	Mercury	60 mg/kg (25 mg/kg)	5 mg/kg	
7782-49-2	Selenium	500 mg/kg	50 mg/kg	

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component			LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis			SUITABLE TEST METHOD Sample Preparation & Measurement
Metals								
		Category 1 Dry, brittle, powder-like or pliable toy material	Category 2 Liquid or sticky toy material	Category 3 Scraped-off toy material	Category 1 Dry, brittle, powder- like or pliable toy material	Category 2 Liquid or sticky toy material	Category 3 Scraped- off toy material	EN 71-3 + A2:2017
	Aluminium	5,626 mg/kg	1,406 mg/kg	70,000 mg/kg	50 mg/kg	50	50 mg/kg	
	Antimony	45 mg/kg	11.3 mg/kg	560 mg/kg	1 mg/kg	1	10 mg/kg	
	Arsenic	3.8 mg/kg	0.9 mg/kg	47 mg/kg	0.5	0.5	10 mg/kg	
	Barium	1,500 mg/kg	375 mg/kg	18,750 mg/kg	50	50	50 mg/kg	
	Boron	1,200 mg/kg	300 mg/kg	15,000 mg/kg	50	50	50 mg/kg	
	Cadmium	1.3 mg/kg	0.3 mg/kg	17 mg/kg	0.1	0.1	5 mg/kg	
	Chromium (III)	37.5 mg/kg	9.4 mg/kg	460 mg/kg	1	1	1 mg/kg	
	Chromium (VI)	0.02 mg/kg	0.005 mg/kg	0.2 mg/kg	0.018	0.005	0.18 mg/kg	
	Cobalt	10.5 mg/kg	2.6 mg/kg	130 mg/kg	0.5	0.5	10 mg/kg	
	Copper	622.5 mg/kg	156 mg/kg	7,700 mg/kg	50	50	50 mg/kg	
	Lead	2.0 mg/kg	0.5 mg/kg	23 mg/kg	0.5	0.5	10 mg/kg	
	Manganese	1,200 mg/kg	300 mg/kg	15,000 mg/kg	50	50	50 mg/kg	
	Mercury	7.5 mg/kg	1.9 mg/kg	94 mg/kg	0.5	0.5	10 mg/kg	
	Nickel	75 mg/kg	18.8 mg/kg	930 mg/kg	10	10	10 mg/kg	
	Selenium	37.5 mg/kg	9.4 mg/kg	460 mg/kg	5	5	10 mg/kg	
	Strontium	4,500 mg/kg	1,125 mg/kg	56,000 mg/kg	50	50	50 mg/kg	
	Tin	15,000 mg/kg	3,750 mg/kg	180,000 mg/kg	0.36	0.08	4.9 mg/kg	
	Organic Tin	0.9 mg/kg	0.2 mg/kg	12 mg/kg	0.2	0.14	0.5 mg/kg	
	Zinc	3,750 mg/kg	938 mg/kg	46,000 mg/kg	50	50	50 mg/kg	

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis	SUITABLE TEST METHOD Sample Preparation & Measurement
Monomers				
79-06-1	Acrylamide	Not detected	0.02 mg/L	EN71-11 Limits are in terms of mg monomer per liter of simulant
80-05-7	Bisphenol A	0.1 mg/L	0.01 mg/L	
50-00-0	Formaldehyde	2.5 mg/L	0.2 mg/L	
108-95-2	Phenol	15 mg/L	1.0 mg/L	
100-42-5	Styrene	0.75 mg/L	0.2 mg/L	
Plasticizers				
115-86-6	Triphenyl phosphate	Not detected For each plasticizer listed	0.03 mg/L	EN71-11
78-30-8	Tri-o-cresyl phosphate		For each phosphate plasticizer listed	
563-04-2	Tri-m-cresyl phosphate			
78-32-0	Tri-p-cresyl phosphate			
	All esters of Phthalic Acid, including but not restricted to:			
28553-12-0	Di-isononyl phthalate (DINP)	Not detected Sum total of all phthalic acid esters	50 mg/kg Sum total of all phthalic acid esters	Nike in-house method Determination of defined Ortho-Phthalic Esters in Synthetic Fibers and Thermoplastics by LC-DAD- MS or GC-MS Confirmation of failure by fragmentation HPLC-MS
117-81-7	Di(ethylhexyl) phthalate (DEHP)			
117-84-0	Di-n-octyl phthalate (DNOP)			
26761-40-0	Di-iso-decyl phthalate (DIDP)			
85-68-7	Butyl benzyl phthalate (BBP)			
84-74-2	Dibutyl phthalate (DBP)			
Polycyclic Aromatic Hydrocarbons (PAHs)				
	Benzo(a)pyrene	For items coming into contact with mouth or skin <0.5 mg/kg for each PAH	0.2 mg/kg	CNS 3478 Clause 6.18 (plastic shoes) ZEK 01.4-8 (other)
	Benzo(e)pyrene			
	Benzo(a)anthracene			
	Chrysene			
	Benzo(b)fluoranthene			
	Benzo(j)fluoranthene			
	Benzo(k)fluoranthene			
	Dibenzo(a,h)anthracene			

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis	SUITABLE TEST METHOD Sample Preparation & Measurement
Preservatives				
	Pentachlorophenol (PCP) and its salts	Not detected	2 mg/kg	EN71-11
58-89-9	Lindane	Not detected	2 mg/kg	
68359-37-5	Cyfluthrin	Not detected	10 mg/kg	
52315-07-8	Cypermethrin	Not detected	10 mg/kg	
52918-63-5	Deltamethrin	Not detected	10 mg/kg	
52645-53-1	Permethrin	Not detected	10 mg/kg	
108-95-2	Phenol	Not detected	10 mg/kg	
2634-33-5	1,2-Benzylisothiazolin-3-one	Not detected	5 mg/kg	
2682-20-4	2-methyl-4-isothiazolin-3-one	15 mg/kg (sum total)	10 mg/kg (sum total)	
26172-55-4	5-chloro-2-methyl-4-isothiazolin-3-one			
50-00-0	Formaldehyde	500 mg/kg	400 mg/kg	
Solvents – Inhalation				
108-88-3	Toluene	260 µg/m³		EN71-11
100-41-4	Ethylbenzene	5,000 µg/m³		
95-47-6	o-Xylene	Total: 870 µg/m³		
108-38-3	m-Xylene			
106-42-3	p-Xylene			
108-67-8	Mesitylene (1,3,5-trimethylbenzene)	2,500 µg/m³		
79-01-6	Trichlorethylene	Not detected		
75-09-2	Dichloromethane	3,000 µg/m³		
110-54-3	n-Hexane	1,800 µg/m³		
98-95-3	Nitrobenzene	Not detected		
108-94-1	Cyclohexanone	136 µg/m³		
78-59-1	Isophorone	200 µg/m³		
71-43-2	Benzene	Not detected		

NIKE RESTRICTED SUBSTANCES LIST FOR TOYS

CAS NO.	SUBSTANCE	NIKE LIMITS Maximum Allowable Concentration in Component	LABORATORY LIMITS Reporting Limit (For Lab Use) mg/kg = Toy material basis mg/L = Aqueous extract basis	SUITABLE TEST METHOD Sample Preparation & Measurement
Solvents – Migration				
79-01-6	Trichloroethylene	Not detected	0.02mg/L	EN71-11
75-09-2	Dichloromethane	0.06 mg/L	0.03 mg/L	
110-49-6	2-Methoxyethyl acetate	0.5mg/L (sum total)	0.1 mg/L	
110-80-5	2-Ethoxyethanol			
111-15-9	2-Ethoxyethyl acetate			
111-96-6	Bis-(2-methoxyethyl) ether			
70657-70-4	2-methoxypropyl acetate			
67-56-1	Methanol	5 mg/L	1 mg/L	
98-95-3	Nitrobenzene	Not detected	0.02 mg/L	
108-94-1	Cyclohexanone	46 mg/L	3 mg/L	
78-59-1	3,5,5-trimethyl-2-cyclohexen-1-one (isophorone)	3 mg/L	0.6 mg/L FY18	
108-88-3	Toluene	2 mg/L	0.5 mg/L	
100-41-4	Ethylbenzene	1 mg/L	0.1 mg/l	
95-47-6	o-Xylene	2 mg/L (sum total)	0.1 mg/L	
108-38-3	m-Xylene			
106-42-3	p-Xylene			
71-43-2	Benzene	5 mg/kg	1 mg/kg	





RESTRICTED SUBSTANCES LIST

PACKAGING

OVERVIEW

TESTING REQUIREMENTS

SCOPE OF THE PACKAGING RSL

NIKE PACKAGING RESTRICTED SUBSTANCES LIST

RSL REQUIREMENTS FOR PACKAGING

OVERVIEW

At Nike, we view packaging as a representation of who we are as a brand. We communicate our brand ideals as well as product knowledge we want to share with consumers. The chemistry in our packaging must reflect our values as a company as we push to increase worker safety and reduce our environmental footprint.

The following pages contain Nike's Packaging Restricted Substance List (PRSL) for 2018. It outlines mandatory standards, restrictions and appropriate test methods for packaging.

PACKAGING DIRECTIVE

Packaging (made of any substrate) is defined by the "Packaging and Packaging Waste Directive 94/62/EC" (as amended by 2004/12/EC) and the Coalition of Northeastern Governors (CONEG) model legislation.

This information ensures that:

- Nike packaging complies with global legislation
- Nike products are not contaminated by packaging materials
- Appropriate standard test methods are utilized for packaging
- Packaging is designed and produced with environmental sustainability in mind

The full version of the PRSL and Packaging Design Requirements (PDR) is available online at www.nikeincchemistry.com.

Please note that as regulatory or consumer requirements change, Nike will update the PRSL as necessary. Nike is committed to giving suppliers as much advance warning as possible with regard to changes to test limits.

- Nike requires all packaging vendors to sign and return the current Nike PRSL/PDR Acknowledgment Form. Refer to the full PRSL/PDR at www.nikeincchemistry.com.
- Nike only accepts results from Nike-approved laboratories.
- Suppliers must provide Nike with all testing results, certified information regarding compliance and supporting documentation within three business days of such a request.

- Suppliers must retain all technical files and test results for at least 10 years.
- Nike expects suppliers to conduct chemical testing every two years, at a minimum, for each packaging component.

Compliance with the PRSL and the PDR is required.

Nike may perform random testing to monitor and ensure compliance with these standards or request testing information from suppliers at any time regarding any packaging material.

TESTING REQUIREMENTS

Suppliers may only produce packaging components and systems that pass PRSL testing as outlined. If a supplier experiences a PRSL testing failure, contact the Nike Packaging representative listed at the end of the Playbook.

Nike requires that all new finished packaging pieces be tested in their final state. Components or materials may be tested before the final piece is submitted to address potential concerns. Note that Nike does not require testing of components or materials, only finished packaging components or pieces.

The tests listed in the PRSL for “All Packaging” are required for all packaging materials, regardless of substrate.

The following pages also outline additional testing requirements for plastics and non-pulp woods. No additional tests are required for paper materials.

The Implementation section of the Nike RSL provides instructions on test sample preparation and sample submission to approved labs.

SCOPE OF THE PACKAGING RSL

All packaging materials, components and systems must comply with the PRSL. This list provides examples of packaging, but should not be considered all-inclusive.

PAPER & WOOD	PLASTIC & WRAP	FINISHING, DYES & INKS	METAL	TEXTILES	MISCELLANEOUS
Boxes Corrugated dot com shipping boxes Corrugated shipping boxes Gift boxes Hang tags J board Labels (adhesive) Stuffing Tissue paper UPC tags Stickers Tape Thermal receipt paper	Boxes (single-pack and multi-pack) Hang tags Plastic cases Poly bags Price tags Retail carry bags Zipper poly bags Stickers Tape	Cellulose laminates Coatings containing heavy metals Foil stamping Hot-stamp printing Matte or gloss lamination Soft-touch coating Spot UV Uncoated UV coating Varnish coatings Water-based (aqueous) lacquer coatings	Magnets Bead chain Eyelets/grommets Pins	Synthetic textiles Plant-based textiles Natural fibers (i.e. animal fiber, wool)	Silica gel/desiccant sachets Antimicrobial stickers Stuffing materials, expanded foam materials

NIKE PACKAGING RESTRICTED SUBSTANCES LIST

PACKAGING/ COMPONENT	RESTRICTED SUBSTANCES/MATERIALS	NIKE LIMITS Maximum Allowable Concentration per Component	LABORATORY LIMITS Reporting Limit (For Lab Use) Per Substance Concentration in Product	SUITABLE TEST METHOD
ALL PACKAGING	Metals			
	Cadmium	Sum of all listed metals must be < 100 mg/kg (0.01%)	10 mg/kg each	IEC 62321
	Lead			
	Mercury	Not to be intentionally added		
	Chromium (VI)			
	Formaldehyde			
	Not required for metal components	150 mg/kg All packaging that tests greater than 75 mg/kg must be reported to Nike representative: Elizabeth.Blackwell@nike.com	20 mg/kg All results less than 20 mg/kg will be reported as not detected All packaging that tests greater than 75 mg/kg must be reported to Nike representative: Elizabeth.Blackwell@nike.com	ISO 14184-2 (Modified to 80°C) Released Formaldehyde
+ Additional Tests				
<ul style="list-style-type: none">PlasticsWood				

NIKE PACKAGING RESTRICTED SUBSTANCES LIST

PACKAGING/ COMPONENT	RESTRICTED SUBSTANCES/MATERIALS	NIKE LIMITS Maximum Allowable Concentration per Component	LABORATORY LIMITS Reporting Limit (For Lab Use) Per Substance Concentration in Product	SUITABLE TEST METHOD
PLASTICS Plastic materials must also undergo these additional tests.	Butylhydroxytoluene			
	Butylhydroxytoluene (BHT)	Not detected	Not detected	ASTM D4275 – 09, “Standard Test Method for Determination of Butylated Hydroxy Toluene (BHT) in Polymers of Ethylene and Ethylene-Vinyl Acetate (EVA) Copolymers by Gas Chromatography”
	Phthalates			
	All esters of o-Phthalic Acid including but not restricted to:			
	Di-isononyl phthalate (DINP) (28553-12-0)	Total: < 500 mg/kg	50 mg/kg each	Nike – In-house Method Determination of defined Ortho-Phthalic Esters in Synthetic Fibers and Thermoplastics by LC-DADMS or GC-MS Confirmation of failure by fragmentation HPLC-MS
	Di(ethylhexyl) phthalate (DEHP) (117-81-7)			
	Di-n-octyl phthalate (DNOP) (117-84-0)			
	Di-iso-decyl phthalate (DIDP) - (26761-40-0)			
	Butyl benzyl phthalate (BBP) - (85-68-7)			
	Dibutyl phthalate (DBP) (84-74-2)			
	Di-isobutyl phthalate (DiBP) (84-69-5)			

NIKE PACKAGING RESTRICTED SUBSTANCES LIST

PACKAGING/ COMPONENT	RESTRICTED SUBSTANCES/MATERIALS	NIKE LIMITS Maximum Allowable Concentration per Component	LABORATORY LIMITS Reporting Limit (For Lab Use) Per Substance Concentration in Product	SUITABLE TEST METHOD
WOOD NON-PULP Wood materials must also undergo these additional tests.	Pentachlorophenol			
	Pentachlorophenol, its salts and esters	0.2 mg/kg Sum of all Pentachlorophenols	0.1 mg/kg	EPA Method 8270 or similar
ALL PACKAGING All materials must comply with these standards and chemical lists. Testing may not be required if suppliers are confident they are following best practices for chemicals management in their facilities. Nike may require proof of compliance for any packaging material, component or system at any time.	General PRSL Compliance Requirements			
	Active Packaging Mold-Prevention Packaging	Not allowed	N/A	N/A
	Odor	Not unpleasant (grade 2)	Qualitative method	SNV 195651
	REACH Substances of Very High Concern (SVHC) Current list is available at: www.echa.europa.eu/candidate-list-table	The lowest level of either: < 1000 mg/kg	Varies by analyte	Varies by analyte
	C8-based Perfluorinated chemistries, including PFOA and PFOS Nike phase out for any packaging with water- or oil-repellent characteristics.	Not detected	0.005 mg/kg	Nike in-house method: Methanol extraction followed by LC-MS-MS or LC-MS-TOF
	Polyvinyl Chloride (PVC) in coated, printed or plastic materials	Not detected	Due to complexity of the analysis, Nike defines detection limit as 10%	Beilstein Test and IR Spectroscopy; confirmation by both tests indicate the presence of PVC

ADDITIONAL GUIDELINES

ODOR MANAGEMENT, ANTIMICROBIAL & SCENTED MATERIALS

NANOTECHNOLOGY MATERIALS

ANIMAL SKINS

ODOR MANAGEMENT, ANTIMICROBIAL & SCENTED MATERIALS

OVERVIEW

Nike defines odor management materials as antimicrobials (also identified as biocides, antibacterials and biostats), odor capture technologies and scented ingredients.

Nike currently restricts the use of scented materials and/or odor control technologies within Apparel, Footwear and Equipment product lines. This restriction applies to any chemical or substance intentionally applied to product to control bacterial populations, capture odors, mask odors or perfume product or the consumer.

RESTRICTIONS

Designed with the consumer and environment in mind, the conditions described below must be met prior to the use of any scented materials or odor management technologies within Nike product. Please contact the Nike Chemistry team for further guidance on the approval process.

Scented materials or odor control technologies must:

- Not leach or release chemicals in order to be effective [A](#), [B](#), [C](#)
- Meet global legislative standards
- Be registered under the EU Biocidal Products Regulation
- Pass a corporate toxicity review conducted through the Nike Chemistry team
- Be proven effective for our product types
- Comply with the Nike RSL
- Be listed on the bluesign® bluefinder

NOTES

[A](#) Restriction on leaching and intentional release of substances is due to the potential to:

- Harm helpful skin bacteria populations
- Create conditions for resistant microbes
- Contribute to the potential for bioaccumulation
- Place Nike product under restrictions proposed in legislation (REACH), the EU Cosmetics Directive, Medical Devices Directive or Pharmaceutical Products Directive

[B](#) Technologies known to release substances in order to be effective:

- Heavy metals (Copper, Silver, Tributyltin [TBT])
- Triclosan
- Pentachlorophenol

[C](#) Moisture-absorbing (mold inhibiting) sachets:

- Dimethylfumarate

NANOTECHNOLOGY MATERIALS

OVERVIEW

Nanotechnology-based materials (i.e., nanomaterials) are not consistently defined. Nanotechnology generally refers to compounds or components within the range of 1 to 100 nanometers (nm) in one or more dimension. (One nanometer is one-billionth of a meter.) Colloidal materials (particularly metals) may also fall within this size range.

These materials typically have enhanced or new properties attributable to their small size. Nanotechnology is highly multidisciplinary, and examples may be found in chemical applications (e.g., polymers) and mechanical/electrical engineering applications (e.g., microscopic machines).

Nanoparticle. Three dimensions in the 1 to 100 nm range.

Nanotubes/nanowires. Two dimensions in the 1 to 100 nm range.

Nanofilms. One dimension in the 1 to 100 nm range.

Nike currently restricts the use of nanomaterials within Apparel, Footwear and Equipment product lines. This restriction applies to any chemical or substance incorporating nanomaterials intentionally applied to a product or used in its construction because it imparts desirable physical properties to the final product or remains in the product due its use in manufacturing a component.

RESTRICTIONS

The following restrictions are designed to ensure that any potentially negative impact to consumers and the environment associated with the use of nanomaterials is minimized, if not eliminated. The conditions described below must be met prior to the use of any nanotechnologies within Nike product.

Products to which nanomaterials are applied must:

- Not leach or release chemicals (or particles) in order to be effective or as a result of wear,^A unless safety data are available and acceptable
- Meet global legislative standards

- Be appropriately registered (e.g., EU Biocide Directive, if used as bacteriostatic agent)
- If registration is not required, manufacturer/supplier has made available an analysis of consumer safety
- Pass a corporate toxicity review conducted through the Nike Chemistry team^B
- Be proven effective for our product types
- Comply with the Nike RSL

NOTES

^A Restriction on leaching and intentional/unintentional release of substances is due to the potential to:

- Induce unanticipated health effects – some nanomaterials appear to have toxicity different from the same, but larger, chemical structures making extrapolation of data on larger particles to nanomaterials difficult
- Create unanticipated exposure situations (e.g., dermal absorption may occur differently) or have unanticipated consequences (e.g., generation of resistant microbes)

- Contribute to the potential for bioaccumulation
- Place Nike product under restrictions proposed in legislation (REACH), the EU Cosmetics Directive, Medical Devices Directive, Pharmaceutical Products Directive or state or local prohibitions on the use of nanomaterials

^B Need for consistent toxicity review:

- Manufacturer's claims may not reflect reality, and some materials labeled "nano" are not
- The evolution of consumer safety issues related to nanomaterials is evolving rapidly. The Nike Chemistry team is committed to staying abreast of new developments
- Toxicity concerns with nanomaterials are very different than those for typical chemicals in our industry and assessments of consumer safety issues require novel approaches



ANIMAL SKINS

OVERVIEW

The following policy applies to Nike brand products or Nike Affiliate brand products (collectively “Products”) that contain animal skin materials (“Animal Skins”).

PERMITTED ANIMAL SKINS

The following Animal Skins are permitted for use in Products:

- Sheep (leather + hair-on hides / shearling; includes lamb)
- Cow (leather + hair-on hides)
- Goat
- Pig
- Kangaroo (If wild caught, must be sourced from actively managed populations with government agency oversight.)

SOURCE COUNTRIES

- Permitted Animal Skins may be sourced in all countries, except for China, India, or the Amazon Biome, as more specifically explained below.
- Products made with Animal Skins must be accompanied by the appropriate Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or other required export certificate where applicable.

RESTRICTIONS

- Animal Skins (specifically cow) must not be sourced in the Amazon Biome (see policy below).
- Animal Skins must not be considered exotic or protected. Examples include, but are not limited to, alligator, cheetah, crocodile, elephant, fish, horse, leopard, lion, lizard, marine mammals, ostrich, shark, snake, tiger, rays, rhinoceros, etc.

- Animal Skins must not be derived from any species of domesticated or feral dog or cat.
- Animal Skins must not be “fur,” except that cow “hair-on” hides or sheep shearling are permitted as provided above.
- Nike supports the use of wool fiber that is sourced and certified from non-mulesed sheep and will consolidate its wool sourcing accordingly, as rapidly as supplies and pricing allow.
- Nike supports down sourced from vendors that produce as a by-product of the meat industry. Vendors do not supply down harvested from live birds nor sourced as a by-product of the foie gras industry.
- Angora Rabbit: Nike requires that animal products are obtained in humane and responsible ways including Angora rabbit wool. This requirement precludes the use of live plucking.

AMAZON BIOME LEATHER SOURCING

- Raw hides / leather used in Nike products will not be produced from cattle raised in the Amazon Biome as defined by IBGE.
- Nike Brazilian hide / leather suppliers are required to certify, in writing, that they are supplying hides / leather for Nike products from cattle raised outside of the Amazon Biome.
- Suppliers of Brazilian hides / leather for Nike products must have an ongoing, traceable and transparent system to provide credible assurances that hides / leather used for Nike products is from cattle raised outside of the Amazon Biome.
- Nike will review suppliers’ progress in establishing an ongoing, traceable and transparent system on a quarterly basis.

If suppliers are unable to provide credible assurances that hides/leather used for Nike products are from cattle raised outside of the Amazon Biome, Nike will consider increasing the exclusion area to include all of the Amazon Legal (as defined by IBGE).

ANIMAL SKINS

DEFINITIONS

- **Raised.** Refers to cattle's entire life.
- **IBGE.** Brazil's National Institute of Geography and Statistics.
- **Amazon biome.** Amazon rainforest and its related ecosystem. The boundary of the Amazon Biome within Brazil is defined by the Brazilian Institute of Geography and Statistics (IBGE).
- **Amazon Legal.** The entirety of the nine Brazilian states that contain portions of the Amazon Biome (Acre, Amazonas, Roraima, Amapá, Pará, Rondônia, Mato Grosso, Tocantins and Maranhão).

RELATED GUIDANCE

ANIMAL WELFARE

Suppliers must source Animal Skins from processors that use sound animal husbandry and humane animal treatment / slaughtering practices whether farmed, domesticated, or wild (managed).

LEATHER WORKING GROUP (LWG)

Leather suppliers must screen tanning processes against the LWG Protocol to ensure adherence to best environmental practices. Visit www.leatherworkinggroup.com.

NIKE RSL

Suppliers of Animal Skins must comply with the Nike RSL.

TRACEABILITY

Suppliers must have the ability to trace raw hides / skins back to country of origin.

INTEGRITY

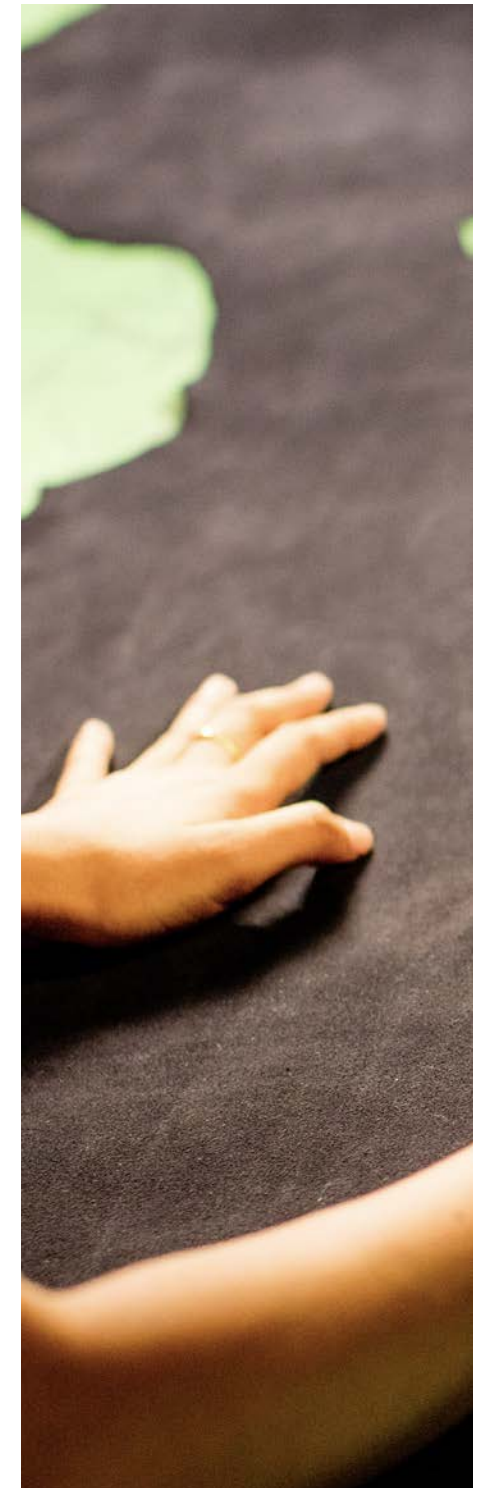
Animal Skins' identification of species must be accurate (i.e. scientific, Latin and common names) as appropriate for legal import/export of materials and product.

LEGISLATION

Suppliers must meet all applicable global legislative standards that apply to Animal Skins.

TRADE REGULATIONS

Suppliers must comply with country-specific import/export trade regulations that apply to Animal Skins.



A woman with long dark hair, wearing a white lab coat, is standing in a laboratory. She is holding a white marker and writing on a large grid chart that is mounted on a wall. The chart has a grid of lines and some handwritten text. The background is slightly blurred, showing laboratory equipment and lights.

FORMS

VALIDATION OF A GREENING EFFORT

ZDHC MRSI COMPLIANCE ACKNOWLEDGMENT

CHEMICALS MANAGEMENT & TRANSPARENCY

VALIDATION OF A GREENING EFFORT

OVERVIEW

The Validation of a Greening Effort (VGE) program was designed to incentivize the use of better, more sustainable chemistries in a material or process by awarding points for these efforts in the Nike Material Sustainability Index (Nike MSI). Submissions should be material-focused, with clear advances in the reduction of chemical use or toxicity to the worker, consumer, and/or environment.

EXAMPLES

- A new process to eliminate a hazardous chemistry from production while maintaining performance requirements.
- A change to a more sustainable approach in a production line of a material.
- Certification of a production line as bluesign® or Oekotex approved

NIKE MSI POINTS

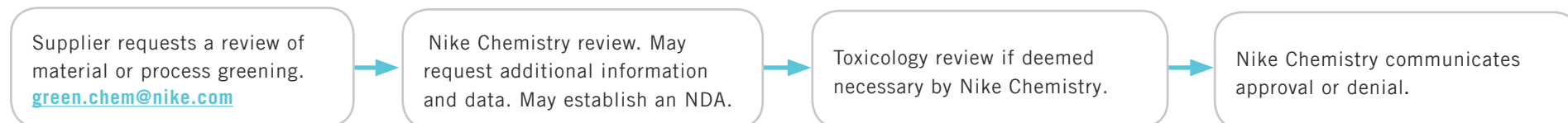
A maximum of 7 points can be awarded in Nike MSI for a specific material, depending on the scale and scope of the chemistry improvement. Typically the maximum points are awarded for world-class material improvements, and all Nike MSI points are valid for a minimum of two years after the award.

PROCESS

- 1 Send a request to initiate a VGE review to the Nike Chemistry Team at green.chem@nike.com. You will receive a VGE intake form, which asks enough detailed questions to take the first steps in the review process.
- 2 Fill out the intake form and return to Nike.
- 3 Depending on the type and scope of the VGE submission, Nike will suggest an approach for the review.
- 4 Disclosure of formulations (if applicable) must be specific enough to allow for this analysis. Non-disclosure agreements (NDAs) can be put in place at supplier discretion.

NOTE

The VGE process does not supersede supply agreements or any legal obligation of suppliers.



ZDHC MRSL COMPLIANCE ACKNOWLEDGMENT

The Zero Discharge Hazardous Chemicals Foundation is a non-profit group with the following vision and mission:

ZDHC VISION

Widespread implementation of sustainable chemistry and best practices in the textile industry to protect consumers, workers and the natural environment.

ZDHC MISSION

Advance towards zero discharge of hazardous chemicals in our supply chain and act to improve the environment and people's wellbeing.

ZDHC MRSL ACKNOWLEDGMENT & CONFORMANCE GUIDANCE

The signing party acknowledges receipt of the most recent version of the ZDHC MRSL and ZDHC MRSL Conformance Guidance. Both are available at www.roadmaptozero.com

The signing party further acknowledges that it will be responsible to:

- Implement the ZDHC MRSL at its production sites over time.
- Pass on the ZDHC MRSL to its supply chain partners.

Without limiting the scope of the ZDHC MRSL, particular focus should be given to suppliers of chemicals such as auxiliaries, dyestuffs, inks, prints, adhesives and solvents.

Please upload a scanned copy of this declaration to the Nike Vendor Portal

www.nikemsivp.com

For any questions related to this declaration, please contact RSLSupport@nike.com









SUPPLIER NAME _____

SIGNATURE OF MANAGER _____

NAME OF MANAGER (PRINTED) _____

DATE _____

FULL TITLE OF MANAGER _____

CHEMICALS MANAGEMENT & TRANSPARENCY

Chemicals management is an integral part of producing materials and products compliant with Nike policy. An effective chemicals management program includes documented policies for procurement, tracking, measuring, and reporting chemical information when required. Resources are available to the supply chain for developing a strong, efficient and effective chemicals management program, such as:

- The Roadmap to Zero Discharge of Hazardous Chemicals (ZDHC) Chemicals Management Framework and Manufacturers Restricted Substances List (MRSL)
www.roadmaptozero.com/fileadmin/pdf/MRSL_v1_1.pdf
- The AFIRM Group Supplier Toolkit
www.afirm-group.com/toolkit

Please read and signify your commitment to the topics below by checking each box.

- ☐ We have a documented purchasing policy for chemicals. This policy contains a listing of approved vendors, and lists all chemicals which are allowed on site, as well as a review process for purchase of chemicals that are not otherwise specified in the purchasing policy.
- ☐ We have a documented inventory of chemicals purchased, stored (including their location) and used at our facility which is updated routinely and whenever new chemicals arrive.
- ☐ We will ensure that our facility has a current MSDS or SDS for every chemical and ensure they are readily available to all staff working with these chemicals at all locations.
- ☐ We ensure that all chemicals are labeled properly, stored in suitable containers, and ensure they are traceable back to the source (bulk) chemicals.
- ☐ We have a documented process where senior management provides feedback on how to improve the system and guide the organization closer to the goal of zero discharge of hazardous chemicals.

☐ Every effort will be taken to ensure that our facility only utilizes chemicals that are in compliance with:

- Regulations where your products are manufactured and sold
- The Nike RSL
- The ZDHC MRSL

SUPPLIER NAME _____

SIGNATURE OF MANAGER _____

NAME OF MANAGER (PRINTED) _____

DATE _____

FULL TITLE OF MANAGER _____



CONTACTS

NIKE & AFFILIATES

NIKE-APPROVED LABORATORIES

NIKE & AFFILIATES

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Lisa Raffaelli	Hurley – All	Hurley HQ/US	lisa.raffaelli@hurley.com

NIKE-APPROVED LABORATORIES

LAB	SHIPPING INFORMATION	CONTACT
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BV-HK	Bureau Veritas CPS (Hong Kong) Ltd Room 324-326, Pacific Trade Centre, 2 Kai Hing Road, Kowloon Bay, Kowloon, Hong Kong	Mr. Sam Siu, Technical Consultation Manager sam.siu@hk.bureauveritas.com Tel: 852-2494-1026 Ms. Siu Yann Lo, Manager siu-yan.lo@hk.bureauveritas.com Tel: 852-2331-0211
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INTERTEK-HK	Intertek Testing Services Hong Kong Ltd. 1/F Garment Centre 576 Castle Peak Road Kowloon, Hong Kong	Carey Ng, Account Executive carey.ng@intertek.com Tel: 852-21738385 Fax: 852-34032401
INTERTEK-SH	Intertek Testing Services Limited, Shanghai 2/F, Building No.4, Shanghai Comalong Industrial Park, 889 Yi Shan Road, Shanghai 200233, China	Jane Wu, Asst. General Manager jane.wu@intertek.com Tel: 86-21-64954601; 86-21-60917026 Fax: 86-21-64953254
INTERTEK-TW	Intertek Testing Services Taiwan Ltd. 8F., No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan	Limei Chu, Senior Manager limei.chu@intertek.com Tel: 886-2-66022675 Fax: 886-2-66022205

NIKE-APPROVED LABORATORIES

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SGS-TW	FOOTWEAR & EQUIPMENT SGS Taiwan Ltd. Multi Chemical Laboratory-Kaohsiung 61, Kai-Fa Rd, Nanzih Export Processing Zone Kaohsiung, Taiwan 81170 APPAREL SGS Taiwan Ltd. Textile Laboratory-Taipei 31, Wu Chyuan Road, New Taipei Industrial Park Wu Ku District, New Taipei City, Taiwan 24886	Janny Lin, SGS Marketing Representative janny.lin@sgs.com Tel: +886 7 3012121, ext.4102 Fax: +886 7 3010867 Tina Chou tina.chou@sgs.com Tel: +886 2 2299 3279, ext. 5209 Fax: +886 2 2298 4060
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