



Restricted Substances List

A Valuable Tool to Keep Harmful
Substances at Bay

What is a Restricted Substances List (RSL)?

Today, consumers are much more informed about which chemicals are used to manufacture the products they buy. As a result, retailers are under much more pressure to deliver products free from harmful chemicals – even some that may not be prohibited or regulated. The implementation of a Restricted Substances List (RSL) provides an opportunity for retailers to build their brand and gain consumer confidence, while also protecting consumer health and the environment through elimination of harmful chemicals in the supply chain.

Across the world, individual countries have regulatory requirements and standards that prohibit certain chemicals in consumer products. This can make compliance quite challenging for brands and retailers who sell products

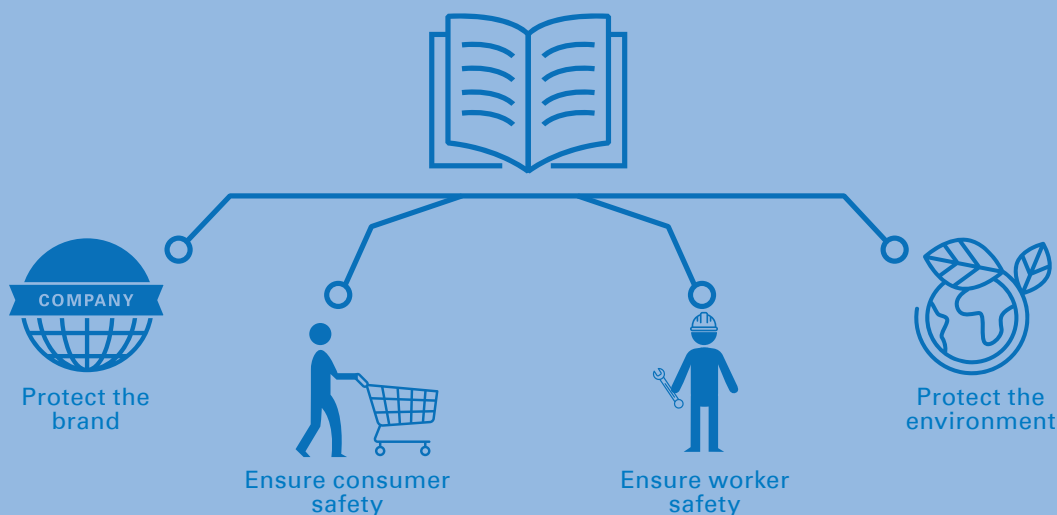
globally. A Restricted Substances List (RSL) provides companies with information related to regulations and laws that restrict or ban certain chemicals and substances found in consumer products around the world. An RSL is a valuable tool that can be used throughout the entire supply chain to help ensure global compliance by setting, monitoring, and enforcing limits on specific substances.

How are Restricted Substances Lists Developed?

Although a Restricted Substances List is not mandatory, it is highly recommended for companies to develop one in order to comply with specific regulatory requirements of the target markets. Therefore, looking at the applicable regulatory requirements for their intended market would be the first step in developing the RSL. A retailer or brand may then take into consideration best practices of their peers and industry groups to incorporate requirements that are above and beyond regulatory standards. Often times, you will also see an RSL Matrix – which indicates materials that should be tested for specific chemicals. Designating specific materials for specific chemical tests can allow a more focused approach to testing against an RSL, reducing unnecessary testing costs.

While brands and retailers have the option of creating their own RSL, they also have the option of adopting an RSL from various industry associations. Examples include the American Apparel and Footwear Association (AAFA), who focuses on all legally restricted substances, or the Apparel and Footwear International RSL Management Group (AFIRM), who focuses on setting industry standards. Both groups provide RSLs to various brands and retailers in order to help reduce the impact of harmful substances in the footwear and apparel supply chain.

GOALS OF A RESTRICTED SUBSTANCES LIST



Which chemicals should your RSL include?

The products' intended markets dictate which regulations and requirements will apply. Companies should also take into consideration industry standards and the practices of their peers. In the United States, many of the federal chemical regulations apply to children's products, toys, and food contact articles. However, there are also state-level regulations that companies must comply with. For example, California Proposition 65, also known as Prop 65, is a consumer "right-to-know law" which requires brands and retailers to apply warning labels to their products that call out the specific harmful chemical. The law lists almost 1,000 chemicals "known to the state to cause cancer, birth defects or other reproductive toxicity."¹ As one would imagine, most brands and retailers do not want to apply this undesirable warning label to their product. Instead, companies will test to settlements which means they target specific chemical tests for specific product categories. By testing to settlements and including the Prop 65 chemicals in their RSLs, companies demonstrate their due-diligence by avoiding the use of the harmful chemicals restricted under the law.

If selling internationally, in Europe for example, the regulations are made by the European Commission and must be followed by every country in the European Union (EU). This organization is the European Chemical Agency (ECHA)² and the regulatory framework is known as Regulation (EC) No 1907/2006 REACH. It is concerned with the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). The REACH Regulation entered into effect in June 2007 and addresses the production and use of chemical substances, and their potential impacts on both human health and the environment. As of July 2019, there are currently more than 70 valid entries in Annex XVII of REACH Regulation. Entry no. 72, is regulating substances in clothing, related accessory, textile in contact with human skin and footwear. The objective of this entry is to protect the consumer from long-term exposure to substances classified as carcinogenic, mutagenic or toxic to reproduction (CMR), category 1A or 1B



1 - CA.gov | <https://oehha.ca.gov/proposition-65>

2 - Europa.eu | <https://echa.europa.eu>

Do you also need a Manufacturing Restricted Substance List (MRSL)?

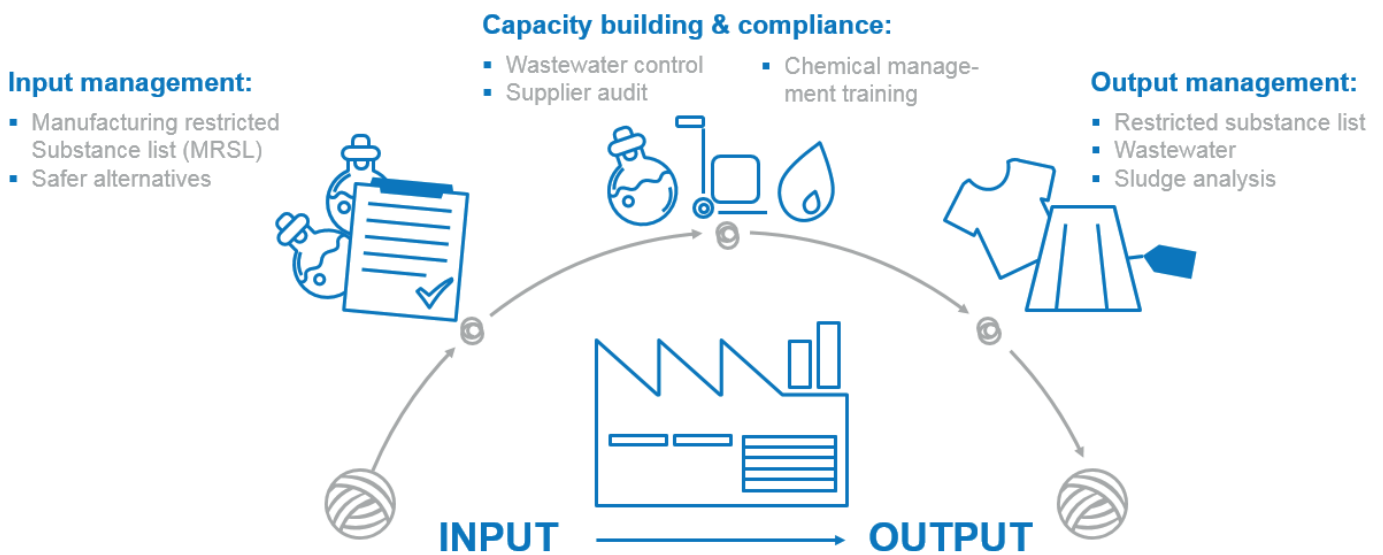
Today, every major company or brand that engages in Chemical Management has a Restricted Substances List in place. The RSL or Product RSL aims to restrict the hazardous chemicals that end up in the finished garment or leather material, in other words, the chemical substances the consumer is exposed to.

The simple problem with the Product RSL is that the final product can still be produced using a lot of hazardous chemicals. The chemicals can react with each other, be degraded, or washed out before they reach the end-consumer, therefore making these products appear to be safe from an

end-consumer perspective. However, it fails to consider the health of workers and the environment in producing countries.

As a result, many companies will also adopt a MRSL, where the “M” stands for “Manufacturing”. A MRSL differs from a Product RSL as the purpose is to identify hazardous substances intentionally used, and therefore, discharged into the environment during manufacturing. This applies to both process and functional chemicals used during the manufacturing process, as well as any chemicals used to clean the equipment in facilities of manufacture. Simply said, a MRSL addresses any

chemical used within the four walls of a manufacturing facility, not just those substances that could be present in finished products. The most challenging task for the industry was to establish a universal, transparent standard in the area of sustainability that is accepted by consumers, governments, and NGOs



What Are the Challenges Brands and Retailers Face When Implementing and Enforcing an RSL?

1 ORGANIZATIONAL ISSUES

In many organizations, quality and compliance teams are far removed from the product development lifecycle, making it difficult to have complete visibility into the manufacturing process. For companies without employees in the country of manufacture, it can be challenging to proactively monitor production and ensure product quality and compliance at early stages.

2 EVER-CHANGING REGULATORY REQUIREMENTS

With evolving regulatory requirements on the international, national and local levels, it can be difficult to keep a RSL up to date. Ongoing review of existing chemicals and new potential chemicals is required to ensure the RSL will verify regulatory compliance and alignment with industry standard.

3 VENDOR AND FACTORY EDUCATION

Retailers and brands have the obligation to stay up-to-date with regulatory requirements and update their chemical policies accordingly. The communication must continue down the supply chain to agents, vendors, factories, mills, dye houses, etc. Retailers and brands can partner with third party organizations, like testing laboratories, to conduct ongoing training for their supply chain.

4 DEVELOPING INDUSTRY AND CONSUMER GROUP INITIATIVES

Many industry organizations, mainly in the apparel, textile and footwear industries, have developed RSLs in response to consumer group initiatives, like Greenpeace's DETOX campaign. Some organizations also adopt RSLs from other sources, such as the American Apparel and Footwear Association (AAFA) or AFIRM. For companies who strive for harmonization and simplification of testing approaches, or for those with few internal resources, adopting a RSL can be a viable option.

Not only is the industry looking out for chemicals in products, but also environmental pollution. The Sustainable Apparel Coalition (SAC) Higg Index, the Outdoor Industry Association's (OIA) Chemical Management Module and the Zero Discharge of Hazardous Chemicals' (ZDHC) Roadmap to Zero are just some of the efforts industry has made to reduce hazardous chemicals and environmental pollution in the manufacturing supply chain.

5 PROTECTING BRAND IMAGE

Today, consumers demand high quality, environmentally friendly products. It can be extremely harmful to a brand's image and sales to be caught selling products containing hazardous chemicals. Brands could face issues such as:

- Negative PR
- Production halts
- Costly corrective actions
- Lost revenue

In addition, further down the supply chain, suppliers could also face black listing and/or risk of losing their operation license.

6 COMPLEXITY OF FOOTWEAR PRODUCTION

Footwear is unique in the respect that it has up to 40 different components and more than 200 operations involved in constructing the shoe. With such high volume of incoming materials, high control of the supply chain is required. Not only must a raw material be compliant to the RSL, but also the finished shoe, after being exposed to different conditions during the manufacturing process.

7 RAW MATERIAL TRACEABILITY

It is critical to look at chemical substances in raw materials and finished goods. While the ultimate goal is for finished product compliance, the only way to ensure this is to have compliant raw materials. It is important that a company's RSL is communicated and understood by the raw material suppliers. Checking the finished product for restricted chemicals often occurs too late to make a corrective action.

8 GOLDEN SAMPLING

A sample that has been specifically designed by the factory to pass testing is often referred to as a "golden sample". However, it's important to put safeguards in place to prevent this from happening in the supply chain. The issue with golden sampling is that the factory-selected sample may not be a true representation of the products actually being produced. To help negate this issue, it is recommended for an employee or third party to pull samples directly from the production line for testing. Random testing or spot checking is also an excellent way for retailers and brands to monitor and verify that their products are in compliance.



How Can Global Brands and Retailers Prepare for Compliance to the RSL?

After incorporating the RSL into vendor agreements and properly preparing their supply chain via training and educational resources, it is recommended that brands and retailers consider the following to ensure compliance:

CONDUCT ROUTINE TESTING

Periodic testing, usually done bi-annually or annually, will check for ongoing compliance with regulatory requirements and any brand owner specifications.

IMPLEMENT A RANDOM TESTING PROGRAM

Random testing verifies that the products in production meet the RSL requirements by means of screening test. Test samples can be drawn by a third party from the manufacturer's warehouse or local factory. If the brand has trusted employees in country, they can be used for the sample draw to reduce overall program costs. Samples are sealed and sent to a third party laboratory for a random series of tests. The tests conducted are assigned based on the materials used and high risk test parameters from the RSL. The factory's assigned risk level, based on the quality controls they have in place, as well as test and audit results, can also be considered when determining the number of random tests to conduct.

Working with an accredited laboratory in the sourcing country can allow for early detection of any issues and non-compliant product containment before distribution. This is a more practical solution than conducting the sample draw in the country of sale because inventory is already dispersed and is costly to separate. Results of the random testing program can be used to further assess the factory in terms of frequency of testing and the number of samples to be included in future random testing programs.

CONDUCT ROUTINE TESTING

Assessing the performance of a factory can allow you to move forward on a path of continuous improvement. Performance in different test parameters can prove to be a valuable tool when evaluating the success of your RSL program. If there is a high failure rate for a specific test parameter, there are several steps you can take to determine if further action should be considered. Questions you may want to ask include:

- Is the allowable limit in line with legal requirements?
- Is the allowable limit in line with the industry standards?
- Is the failure associated with a specific material?

If you are able to identify the answers to these questions, corrective actions can be put into place. Luckily, a Corrective Action Process is usually part of an RSL program. Another important factor to consider is how the factory handles the non-conformances. In the event that non-conformities are identified, the factory must have a proactive and timely response, and be able to provide full documentation. On the other hand, it is also important to recognize positive factory performance as well. For example, a company doing annual testing may choose to reduce testing frequency to bi-annually for a factory with a good pass rate, ultimately reducing costs.

Conclusion

As public concern for product safety and environmental protection increases, brands and retailers are facing more pressure when it comes to being transparent with the chemicals used to manufacture their products. One of the best ways for companies to prove their commitment towards protecting their employees, their consumers and the environment is to implement a RSL and MRS� into their supply chain. Doing so also helps manufacturers and retailers comply with the various local and international regulations, save time and money by avoiding costly production delays, minimize risk, and prevent reputation-damaging product recalls. An RSL provides assurance and confidence to consumers that your product is manufactured with the highest consideration for chemical safety.

By partnering with TÜV Rheinland for your chemical management needs, our global network of experts will conduct thorough inspections and offer solid solutions throughout the complete supply chain servicing the apparel and footwear industry. We act to reduce negative environmental impact and improve compliance associated with manufacturing operations and practices. We also consider individual requirements specified by or affecting a particular brand, buyer, or retailer. Ultimately, we help you make sure your products are properly produced to protect both the environment and consumers, as well as demonstrate your corporate commitment to quality and safety.



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