



**Choose certainty.  
Add value.**

## Restricted Substances List

### [Complying with prohibitions, limitations and other provisions](#)

Increasing public concern about product safety and environmental protection has led many governments, industry associations and buyers to create a Restricted Substances List (RSL). This list provides information related to restrictions on carcinogenic, mutagenic and non-biodegradable chemicals and substances in their textile, garment, footwear and other softlines and hardlines products.

Many restricted chemicals and substances continue to be used in both wet and dry material processing of textile and leather products. Other dangerous substances are used to improve the functional performance of fabrics.

### [Gain a competitive advantage for your business](#)

The RSL is a practical tool to help your business become more alert to the amount of chemicals and metals permitted in finished textile, apparel and footwear products. It enables you to control the use of these substances in your own processes, and those of your suppliers and retailers across your value chain. This is increasingly important, as most major brands now insist that all their stakeholders and partners conform to RSL guidelines.

RSL compliance:

- Guards your brand image
- Prevents product recalls
- Expands your market share
- Boosts consumer confidence in your products

Different countries have varying international regulations on hazardous substance use. Understanding and adhering to these requirements enables you to tailor your use of such materials to meet regulatory standards such as RoHS and REACH, as well as individual country requirements such as California Proposition 65.

Aligning your use of hazardous substances with the RSL also keeps you informed of the types and nature of restricted substances, their sources, and how to avoid them in your process chain. This means staying up to date with legal requirements as well as your customers' preferences for personal and environmental safety in textile, clothing and footwear.

### [Commonly used restricted chemicals and substances](#)

- Aryl amines and heavy metals for enhancing fabric colour
- Formaldehyde for wrinkle-free garments
- Organotins for anti-fungal properties
- Flame-retardants for fireproof clothing



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### Banned or restricted chemicals

A Restricted Substance List will typically include chemicals that have been classified as toxic, harmful or non-biodegradable. For example:

- Formaldehyde
- Banned amines (Azo dyes)
- Nickel
- Hexavalent chromium
- Allergenic dyes
- Dimethylfumarate
- Lead and Cadmium
- Chlorophenols
- Organotin compounds
- Phthalates
- Isocyanates
- Leachable heavy metals

### Sources of Restricted Substances

These substances can be introduced at any point in the process chain. For example:

- Pesticides used in cotton cultivation
- Chlorophenols used during sizing and printing as a preservative for starch and leather
- Azo dyes used during dyeing and printing
- Heavy metals from dyes, pigments, plastics and certain process inputs such as mercury from caustic used for scouring and mercerisation
- Phthalates from PVC and non-PVC materials, plastisol printing, transfer prints and plastics used as a softening agent of polymers
- Organotin compounds from plastisol print and polymers used as stabilisers and antimicrobial agents
- APEO from non-ionic surfactants

- PFOS from water and oil-repellent finishes such as PTFE (polytetrafluoroethylene)-coated materials
- Chlorinated benzenes and toluene from carriers used during low temperature dyeing of polyester and nylon
- Formaldehyde from cross-linking agents
- Hexavalent chromium from soluble tanning agents
- Dimethyl fumarate used as antimicrobial agents in silica gel and leather

### How we can help your business

Partnering with TÜV SÜD offers a range of benefits for businesses operating in the softlines process chain.

Access technical solutions and expert opinion  
We provide comprehensive RSL training and expert opinion on issues you may face in aligning your use of hazardous substances to the RSL.

Ensure compliance with worldwide safety and environmental standards  
Through our expertise and sophisticated ISO 17025 accredited laboratories, we provide testing solutions that not only determine a product's RSL compliance in terms of its chemical content, but also determines which elements, if any, need to be replaced and how new compliant materials and components will perform.

### Contact us today

To learn more about how we can help your business, email our experts now at [softlines@tuev-sued.com](mailto:softlines@tuev-sued.com)