LDI interiors™

Update: March 2025

What are Plasticizers, Flame Retardants, PFC, and Antimicrobial Biocides?

Phthalate Plasticizers:

Plasticizers are additives used in the plastics industry to make rigid plastic materials more flexible and softer. Plasticizers can be found in many common materials and objects, including construction materials, food packaging, medical devices, adhesives, rubber materials, wire and cable, and even cosmetics. These plasticizers are used to make PVC materials, including Vinyl upholstery and piping. Phthalate-based plasticizers are a specific family of chemicals that are highly cost-effective plasticizers. Due to their nature, though, they do not chemically bond to the plastic they are used in and can leach out. Phthalates and other plasticizers have been linked to multiple human health-related issues. Some are listed carcinogens, some have been linked to adverse reproductive health effects, and certain jurisdictions regard some phthalates as potentially harmful to the endocrine system. LDI's Enviroleather™ and Envirohyde™ upholstery is phthalate-free yet remains soft and flexible.

Flame Retardants:

Flame retardants are a diverse range of chemicals that are added to various materials to mitigate the spread and persistence of fire in common products. They can be from different families of chemicals and perform their job through various mechanisms to slow or stop the flame. Many of these compounds have adverse effects on human, animal, and environmental health. These effects can range from carcinogenic effects to human developmental issues, thyroid issues, hormone imbalances, as well as short-term and long-term toxicity. LDI upholstery products, such as EnviroleatherTM and EnvirohydeTM, meet industry-standard flame codes for commercial interiors without the use of flame retardants.

Perfluorinated Compounds (PFCs):

Perfluorinated (or perfluoro) Compounds, also known as PFCs, are a group of highly stable fluorine-containing chemicals that include PFOA, PFOS, and/or PFAS. Due to the stable nature of these chemicals and their physical properties, they have found applications in various areas, including stain-resistant finishes, waterproofing treatments, non-stick surfaces, lubricants, and firefighting foams. LDI upholstery products, including Enviroleather™ and Envirohyde™, have excellent stain resistance while containing no PFCs.

Antimicrobial Chemicals:

In recent years, there has been a growing trend of incorporating antimicrobial agents into various materials to reduce the risk of surfaces harboring organisms that may contribute to healthcare-associated infections (HAIs). This trend is also evident in commercial and hospitality applications, where the addition of antimicrobial agents helps maintain healthy environments free from pathogens. This, however, may create a false sense of security.

Over time, it has been established that the use of these antimicrobial agents can contribute to the development of antibiotic resistance in various organisms. Additionally, these materials can degrade over time, potentially leading to even higher levels of bioburden. It is still suggested that proper hand hygiene and thorough, regular cleaning of surfaces are highly effective in reducing HAI's. LDI's materials, such as EnviroleatherTM and EnvirohydeTM, exhibit excellent stain resistance and cleanability, allowing for easy sanitization without the need for antimicrobial additives.