The Coming PFAS Litigation Risk for Geotextile Manufacturers

By GNA Editor

16 May 2024

Abstract

The recently published scientific paper by Australian researchers (Elissar Mikhael, Abdelmalek Bouazza, Will P. Gates, and Daniel Gibbs) has cast the spotlight on geotextiles as a source of PFAS contamination.

They discovered the presence of PFAS in woven and nonwoven polypropylene geotextiles and four nonwoven polyester geotextiles commonly used in modern geosynthetic composite lining systems for waste containment facilities such as landfills.

The analysis showed that most geotextile specimens evaluated contained the highly migratory, ultrashort chain PFAS compound pentafluoropropionic acid (PFPrA). The average measured concentrations of PFPrA were higher in polypropylene than in polyester geotextiles.

In light of the above discovery this article discusses how to navigate the evolving state and federal regulatory landscape and litigation environment surrounding PFAS "forever chemical" content in manufactured and imported geotextile products.

Prepare for the current and future litigation threats facing geotextile manufacturers and gain valuable insights on how to prepare and manage these risks. Stay ahead of the curve to protect your brand and bottom line.

Navigating the PFAS Litigation Risk for Geosynthetic Product Manufacturers

As the regulatory landscape continues to evolve, geotextile product manufacturers are facing increasing scrutiny over the presence of PFAS, or "forever chemicals," in their products. This emergent concern is not only a regulatory issue but also a substantial litigation risk. Manufacturers and importers must be vigilant in understanding both state and federal guidelines that govern the use of these chemicals in their products.

Understanding the Risks

PFAS, due to their persistent nature and potential health risks, have become a focal point of environmental regulation and litigation. For manufacturers of geotextiles, which are often integral to environmental projects, the stakes are particularly high. The durability of these products, while beneficial for performance, can also pose long-term environmental risks if they contain PFAS. Manufacturers of geotextiles need to be proactive and begin PFAS accounting of their plastic products.

PFAS accounting is a testing regime for PP and PET geotextile manufacturers to ensure their products are free of PFAS (per- and polyfluoroalkyl substances). It emphasizes the importance of proactive measures including comprehensive audits of the supply chain and analytical testing. Manufacturers need to test not only the final geotextile products but also various raw materials involved in their production. These materials include barefoot resin, compounded resin, carbon black masterbatch, additive masterbatch, processing aids such as spin finishes, and extrusion line purging compounds.

ExcelPlas Labs offer PFAS analysis and risk assessment services. This testing regime helps manufacturers understand and navigate PFAS regulations and maintain product safety and compliance. This structured approach allows manufacturers to identify PFAS sources within their production processes and confidently address potential exposure risks.

PFAS Detection and Analysis in Polymers

The analysis of water, soil, food and biological fluids for PFAS is well established, however, PFAS test methods for the analysis of geotextiles and related polymer-based raw materials and masterbatches have not been established. This is due to the difficulties dissolving polyethylene in solvents at high temperatures.

The main challenge is total dissolution of the polymer and the total extraction of PFAS (if present) from the polymeric matrix which often contains carbon black and other additives which can strongly absorb organic molecules including PFAS. Thus PFAS analysis in challenging and sometime intractable polymeric matrices requires specialized PFAS extraction and recovery techniques. Fortunately, ExcelPlas Labs (https://www.excelplas.com/) have developed and optimised a proprietary extraction procedure for polymeric geotextiles and associated raw materials to ensure complete extraction of PFAS from the sample matrix.

Staying Ahead of Litigation

It is crucial for geotextile manufacturers to stay informed about ongoing and upcoming litigation trends. Being proactive in compliance can safeguard against costly legal battles and potential fines. Manufacturers should engage proactively begin to test their geotextile product lines for PFAS levels to navigate this complex field effectively.

Preventive Measures and Strategic Planning

Understanding the source of PFAS in your supply chain is vital. Manufacturers should conduct thorough audits of their materials and processes to ensure compliance with the tightening regulations. Implementing changes in the early stages can significantly mitigate risks and protect the company's reputation and financial health.

Expert Guidance

Engaging with experts who have a deep understanding of both the regulatory environment and the technical challenges associated with PFAS is essential. These professionals can provide strategic advice on reformulating products to eliminate or reduce PFAS content, navigating the legal nuances, and staying ahead of potential regulatory changes.

Protecting Your Brand

In the face of these challenges, maintaining transparency with customers and stakeholders about efforts to reduce PFAS in products can enhance trust and protect your brand's integrity. Educating your team and aligning your business practices with the best environmental standards is not just about compliance, but also about positioning your brand as a leader in sustainability.

Conclusions

The path forward for geosynthetic manufacturers in light of PFAS litigation risks involves a blend of proactive regulatory compliance, strategic planning, and engagement with legal and environmental experts. Doing proactive PFAS analysis and staying informed and prepared is the best defence against the potential financial and reputational damages that these legal challenges could bring.