

Europump Position Paper on the Essentiality of Fluoropolymers in Industrial Applications

Summary

Fluoropolymers are essential in many industrial applications due to their unique properties. Despite their importance, they are often underestimated, particularly in manufacturing non-fluorinated substances. Recognizing them as essential, as recently noted by the ECHA, is a positive step. However, challenges in supply chain communication and differentiation between the most hazardous PFAS and fluoropolymers must be addressed to ensure industrial safety and environmental protection.

Introduction

Fluoropolymers are vital for green transition, and in mechanical engineering applications, especially in pumps and critical machinery. Their resistance to extreme temperatures, chemicals, and corrosion ensures the safety, efficiency, and longevity of various systems.

The Underestimated Importance of Fluoropolymers

Fluoropolymers are crucial beyond mechanical engineering and pump manufacturing, often used in producing non-fluorinated substances. Restricting or banning them without considering these factors could compromise many manufacturing operations. Fluoropolymers are often used in industrial applications due to compliance, durability and safety requirements, and fluoropolymers are indispensable for the competitiveness of the European industry.

Supply Chain Communication Challenges

No mandatory requirements exist today to communicate PFAS presence in supply chains, making it difficult for companies to identify these substances. Improved communication is essential for regulatory compliance and environmental stewardship.

Differentiated approach to PFAS

Banning the most dangerous PFAS will be slow without differentiating them into distinct groups. A sensible division and focused bans on particularly dangerous uses leads to quicker solutions. This approach allows for in-depth discussions on applications lacking solutions.

Alternative policy and regulatory options

For managing potential contamination from fluoropolymers, alternatives to a ban exist:

- Pollution control requirements for manufacturing sites,
- Responsible sourcing requirements,
- Waste management strategies, and extend producer responsibility to address end of life,
- Monitor use phase emissions,
- Traceability requirements for fluoropolymer components,
- Investment into fluoropolymer recycling.

Environmental and Economic Competitiveness

Fluoropolymers provide critical industrial benefits yet balancing these with environmental and economic factors is crucial. Industry must continue to innovate to lessen fluoropolymers' environmental impact, and promote recycling and sustainable alternatives. However, a sudden and localized shift away from these

materials could harm EUs competitiveness and compromise the safety and efficiency of vital systems, including pumps, in mechanical engineering.

Policy Recommendations

- **Support Research and Development:** Fund research to improve the environmental footprint of fluoropolymers while retaining their performance.
- **Sustainable Practices:** Encourage sustainable manufacturing, and use and end of life handling within the industry.
- **Balanced Regulation:** Create regulatory frameworks that differentiates between the most hazardous PFAS and the fluoropolymers and do not hinder innovation or industrial safety and efficiency.
- **Stakeholder Collaboration:** Promote collaboration among industry, regulators, and environmental groups to develop best practices for fluoropolymers.
- **Improve Supply Chain Communication:** Introduce reasonable information obligation and create tools for better communication across the supply chain and towards authorities. Requirements must balance proprietary data and disclosure obligations.

Conclusion

The ECHA's recognition of fluoropolymer seals as an "identified use" highlights their indispensable role in modern industry, however other applications for fluoropolymers are not recognised. Supporting innovation and sustainability in this sector ensures fluoropolymers drive industrial progress while reducing environmental impact. Policymakers must establish a balanced regulatory framework that fosters both technological advancement and environmental stewardship.

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