Sulzer Launches EcoStyrene™ Technology for Chemical Recycling of Contaminated Polystyrene

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Innovative technology transforms heavily contaminated polystyrene waste into valuable resources

Sulzer is proud to announce the launch of its licensed EcoStyrene technology, a groundbreaking solution for the chemical recycling of contaminated polystyrene materials.

The EcoStyrene process addresses one of the chemical recycling industry's most significant challenges: effectively processing waste polystyrene materials that contain multiple types of contaminants. Unlike conventional recycling methods that require pristine feedstock, our technology efficiently processes polystyrene waste containing flame retardant components and food residue, transforming these previously unrecyclable materials into valuable resources that can be reintroduced into the production cycle, including food contact applications.

"We're excited to bring this transformative technology to market," said Ilja Mikenberg, Global Head of Process Solutions at Sulzer Chemtech. "The chemical recycling sector has been seeking sustainable solutions for contaminated plastic waste management, and our EcoStyrene technology provides a practical, economically viable answer even for the most challenging feedstock."

The technology has been developed in partnership with a leading technology and solution provider with commercial experience providing fluid-bed reactor technology. Combining Sulzer's process and equipment expertise in the field of polymer recycling with a proven reactor technology spearheaded the development. The strategic collaboration has accelerated the development process, making the technology commercially available today.

Sulzer Chemtech and its partner are building a polystyrene alliance across the value chain, from waste manager to brand owner, to valorize polystyrene waste. Chemical recycling operators can now implement this solution to expand their acceptable feedstock range, reduce environmental impact, meet sustainability targets, and generate additional value from materials previously considered too contaminated for conventional recycling methods.

Image caption:

Image 1: Sulzer Launches EcoStyrene™ Technology for Chemical Recycling of Contaminated Polystyrene *(source: shutterstock_1650733639)*

About Sulzer

Sulzer is a global leader in critical applications for core infrastructure and processes for large essential industries around the world. We ensure the security, quality and durability of critical goods and services by supporting energy security, natural resource management and efficiencies in process industries. This in turn supports the transition to a circular economy. Our integrated solutions add significant value by enabling energy efficiency, carbon emissions and pollution reduction, and process efficiency improvements. Customers benefit from our commitment to innovation, performance and quality through our responsive network of 160 world-class manufacturing facilities and service centers across the globe. Sulzer has been headquartered in Winterthur, Switzerland, since 1834. In 2024, our 13'500 employees delivered revenues of CHF 3.5 billion. Our shares are traded on the SIX Swiss Exchange (SIX: SUN). www.sulzer.com

The Chemtech division is the global market leader in innovative mass transfer, static mixing and polymer solutions for chemicals, petrochemicals, refining and LNG. We are steering the way in ecological solutions such as bio-based chemicals, polymers and fuels, recycling technologies for textiles and plastic as well as carbon capture and utilization/storage, contributing to a circular and sustainable economy. Our product offering ranges from process components to complete process plants and technology licensing.

This document may contain forward-looking statements including, but not limited to, projections of financial developments, market activity, or future performance of products and solutions containing risks and uncertainties. These forward-looking statements are subject to change based on known or unknown risks and various other factors that could cause actual results or performance to differ materially from the statements made herein.

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