

MEDIA RELEASE

Clariant teams with Technip Energies to introduce new catalyst for unprecedented low steam-to-oil ratios in styrene production

- **Groundbreaking StyroMax™ UL-100 catalyst technology enables higher energy efficiency with extra-low steam-to-oil ratios**
- **Collaboration with Technip Energies offers outstanding performance for revamps, drop-in refills into existing units, and grass roots new Styrene Monomer (SM) plants licensed by Technip Energies' subsidiary Badger Licensing**
- **Strategic advancement in sustainable SM production through lower steam consumption**

MUNICH, APRIL 9, 2025

Clariant, a global leader in specialty chemicals, today announced the launch of StyroMax UL-100, its most advanced ethylbenzene dehydrogenation catalyst to date. This innovative catalyst achieves exceptional performance at unprecedented low steam-to-oil ratios (S/O) of 0.76 by weight, setting a new industry benchmark in SM production efficiency.

The StyroMax UL-100 has been specifically engineered to facilitate ultra-low steam-to-oil operations in styrene plants for drop-in refills into existing units, through revamp and for grass roots projects. Through an alliance with Technip Energies, this cutting-edge catalyst technology will enable plant operators to significantly reduce steam consumption while maintaining optimal production rates.

This breakthrough in catalyst technology addresses the industry's persistent challenge of balancing energy efficiency with production performance. The ability to operate at S/O ratios as low as 0.76 by weight represents a significant advancement over previous catalyst generations of 1.02, offering the potential for substantial energy savings and reduced carbon footprint for styrene producers.

"Our close cooperation with Technip Energies has led to the development of StyroMax UL-100, a breakthrough in styrene catalyst technology," says Gene Mueller, Head of Ethylene and Vice President Business Unit Catalysts Americas at Clariant.

"By working hand-in-hand with customers, we've created a solution that not only advances their sustainability initiatives but also enhances their operational efficiency. This innovation is a direct result of listening to customer needs and developing solutions that deliver real value to their business."

Wei Cai, Chief Technology Officer at Technip Energies, commented, "This cooperation with Clariant aligns well with Technip Energies' commitment to providing cutting-edge and sustainable solutions to our customers. With the StyroMax UL-100 catalyst, our styrene monomer technology offers our clients an unprecedented opportunity to enhance operational performance while reducing energy consumption and lowering GHG emissions, paving the way for a more sustainable operation." StyroMax UL-100 is available to all Badger -licensed plants, including existing, revamped, and new project units.

For plant operators, StyroMax UL-100 offers:

- Unprecedented low steam-to-oil ratio capability (0.76 by weight)
- Superior catalyst activity while maintaining high selectivity
- Reduced energy consumption and operating costs
- Enhanced plant sustainability performance
- Optimized integration with Badger technology

For more information about StyroMax UL-100 and Clariant's catalyst solutions, please visit www.clariant.com/catalysts.



Clariant StyroMax UL-100 catalyst. © Clariant

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Clariant is a focused specialty chemical company led by the overarching purpose of “Greater chemistry – between people and planet.” By connecting customer focus, innovation, and people, the company creates solutions to foster sustainability in different industries. On 31 December 2024, Clariant totaled a staff number of 10 465 and recorded sales of CHF 4.152 billion in the fiscal year for its continuing businesses. Since January 2023, the Group conducts its business through the three Business Units Care Chemicals, Catalysts, and Adsorbents & Additives. Clariant is based in Switzerland.

www.clariant.com/catalysts

Building on a 165-year history, Clariant Catalysts is a global and independent manufacturer of energy-efficient catalyst technologies shaping a sustainable future for the chemical industry. We create greater chemistry – between people and planet – by helping to decarbonize our customers’ production processes and scaling up the transition toward zero-emission chemicals and fuels. Through our exceptional R&D and established expertise, our broad portfolio of catalysts and adsorbents provides innovative solutions that range from the oil and gas to the plastic sectors. With more than 2 000 employees at 31 locations, our high-performing teams collaborate with partners and customers across our global footprint.

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