

MEDIA RELEASE

Clariant Climate Campaign winner GNFC cuts 44,000 tons/month CO_{2e} emissions with EnviCat N₂O removal catalyst

- Gujarat Narmada Valley Fertilizers & Chemicals Limited (GNFC) implemented Clariant's EnviCat N₂O-S catalyst for nitrous oxide (N₂O) abatement
- The catalyst installation at GNFC's nitric acid plant in Gujarat demonstrates exceptional performance, reducing N₂O emissions by 44,000 tons per month of CO_{2e}
- EnviCat N₂O-S, a well-established, drop-in solution capable of removing more than 95% of N₂O from the off-gas of nitric acid plants proves highly efficient

MUNICH, MARCH 25, 2025

Clariant, a sustainability-focused specialty chemical company, today announced remarkable results from its Climate Campaign for nitrous oxide abatement at Gujarat Narmada Valley Fertilizers & Chemicals Limited's (GNFC) facility in Gujarat, India. The installation of Clariant's EnviCat N₂O-S catalyst has shown outstanding performance since October 2024, with monitoring data demonstrating significant reduction in N₂O emissions equivalent to 44,000 t/month CO_{2eq}.

Xaver Karsunke, Head of Specialty Catalysts at Clariant, commented, "Our partnership with GNFC, a pioneering force in India's fertilizer and chemical industry, marks a significant milestone in industrial decarbonization efforts. The exceptional performance of EnviCat N₂O-S at GNFC's facility demonstrates how our sustainable catalyst solutions can help industry leaders achieve substantial greenhouse gas reductions."

Mr. M. I. Shamsi, Executive Director, Gujarat Narmada Valley Fertilizers & Chemicals Limited, stated, "As a company committed to environmental stewardship since our establishment in 1976, this collaboration with Clariant aligns perfectly with our sustainability goals. The impressive performance of the N₂O abatement system not only showcases our dedication to reducing environmental impact but also strengthens our position as an industry leader in sustainable chemical manufacturing."

The implementation at GNFC's facility has demonstrated strong and consistent performance in CO_{2e} reduction. Based on the initial four months of operation, the projected annual CO_{2e} reduction is expected to reach approx. 520,000 metric tons, with further improvements anticipated following a planned catalyst addition during the next maintenance shutdown.

Prakash Babu, CEO of Süd-Chemie India Pvt Ltd (SCIL), added, "We are delighted to see such encouraging results at GNFC's facility. The successful implementation of EnviCat N₂O-S and its remarkable performance in reducing CO_{2e} emissions reinforces our commitment to providing high-quality products, services, and innovative solutions that support India's fertilizer and chemical manufacturers in achieving their sustainability goals. This project exemplifies the significant impact our technologies can have in industrial decarbonization."

While nitric acid is essential for manufacturing fertilizers, its production process emits N₂O, which is almost 300 times more harmful to the climate than CO₂. The EnviCat N₂O catalyst series effectively removes N₂O and other nitrogen oxides, designed as a drop-in solution that can be easily installed without disrupting manufacturing processes. With over 50 successful installations globally and 20 years of market presence, EnviCat N₂O continues to demonstrate its effectiveness in industrial applications.

Clariant initiated the Climate Campaign to offer producers an economical way to reduce emissions and inspire them to transition towards climate neutrality. From November 2021 to March 2022, winners were selected to receive a complimentary load of the EnviCat N₂O-S catalyst. All selected companies had no existing N₂O abatement systems in place, representing a significant opportunity for reducing greenhouse gas emissions in the nitric acid production sector.

Learn more about Clariant's [EnviCat N₂O-S catalyst](#) for nitrous oxide abatement.



Gujarat Narmada Valley Fertilizers & Chemicals Limited (GNFC) facility in Gujarat, India, where Clariant's EnviCat N₂O-S catalyst technology is helping reduce greenhouse gas emissions by 44,000 tons CO_{2e} per month. © 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 over 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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