

MEDIA RELEASE

Clariant launches major climate campaign: Free N₂O-removal catalyst for nitric acid producers worldwide

- Nitrous oxide (N₂O), a by-product of nitric acid production, is around 300 times more harmful to the climate than CO₂
- Up to 95% of N₂O can be effectively removed using Clariant's EnviCat® N₂O-S catalyst
- By offering the catalyst for free to 10 producers worldwide, Clariant aims to help avoid greenhouse gas emissions equivalent to several million tons of CO₂

MUTTENZ, NOVEMBER 24, 2021

Clariant, a focused, sustainable and innovative specialty chemical company, today launched a major global campaign to reduce the climate change impact of nitrous oxide (N₂O). Drawing on decades of catalyst research expertise, the company has developed the EnviCat N₂O-S catalyst, which is proven to remove up to 95% of N₂O generated as a by-product of nitric acid production*¹. Clariant is now offering a free fill of EnviCat N₂O-S to 10 nitric acid producers who do not have N₂O off-gas treatment in place. Through the campaign, the company intends to help avoid greenhouse gas emissions equivalent to several million tons of CO₂ every year.

Of the approximately 500 nitric acid plants operating globally, more than half run without N₂O abatement, mostly in regions without applicable emission control regulations*². Clariant now aims to tip the balance towards more sustainable production processes. The company is offering a free first fill of EnviCat N₂O-S catalyst to up to 10 nitric acid producers who currently do not use an N₂O abatement catalyst.

Hans Bohnen, Chief Operating Officer at Clariant, commented, "Sustainability is no longer an afterthought of business; it is central to what we do and requires action now. That's why we announced new ambitious science-based climate targets for Clariant. But as a specialty chemicals company we can do more: I am therefore particularly proud to announce that we have committed a substantial investment to help nitric acid producers worldwide virtually eliminate their N₂O off-gas emissions. This benefits the climate, while also helping the nitric acid manufacturers to minimize their carbon footprint and progress on their sustainability journey."

¹ Source: Multiple references worldwide using Clariant's EnviCat® N₂O-S in commercial operation

² Source: Entec, 2017

Stefan Heuser, Senior Vice President and General Manager of Clariant Catalysts, stated, “Our aim is to provide a considerable contribution to environmental protection. While N₂O is extremely harmful for the climate, it is easy to reduce with our catalysts. We believe that once those nitric acid producers experience the benefits – with a free-of-charge catalyst and without obligations – they will be ready to change.”

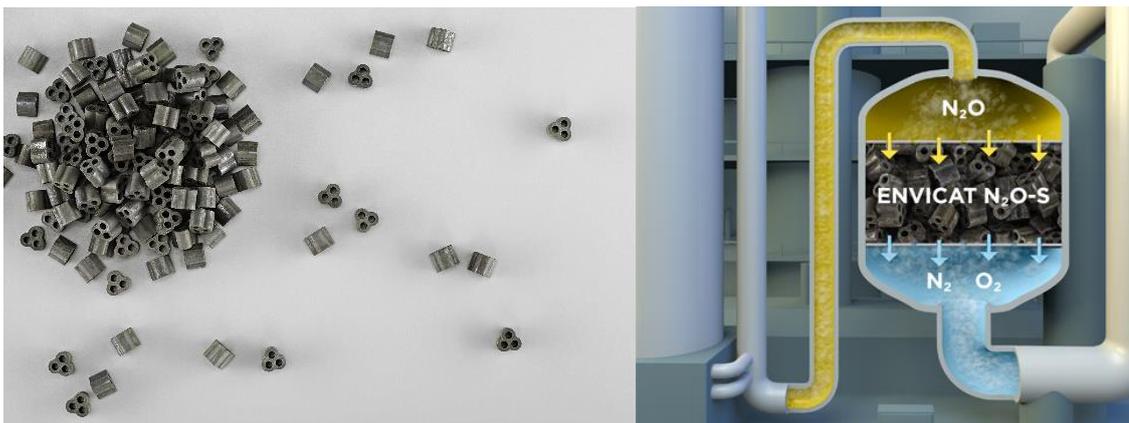
Over 60 million tons of nitric acid are produced annually around the world, mainly for manufacturing fertilizers. Despite its importance for our food chain, the chemical has a major drawback: its production emits N₂O, which is extremely harmful for the climate. The greenhouse gas remains approximately 114 years in the atmosphere and thus impacts global warming around 300 times more than CO₂^{*3}. Annually, N₂O emissions from the production of nitric acid and its derivative adipic acid are equivalent to about 100 million tons of CO₂^{*4}.

The technology to avoid the serious impacts of N₂O emissions is already available: Clariant’s EnviCat N₂O-S catalyst converts up to 95% of the N₂O formed during nitric acid production into the harmless substances oxygen and nitrogen. Besides climate benefits, the catalyst can also slightly increase nitric acid yield by improving the efficiency of the ammonia oxidation process. Designed as a convenient “drop-in” solution, the catalyst is easy to install with almost no engineering modifications.

Clariant’s EnviCat N₂O emission control catalysts are already installed in more than 45 nitric acid production plants globally. Combined, they reduce annual N₂O emissions equivalent to more than 20 million metric tons of CO₂.

Interested parties are encouraged to learn more about the offer on:

www.clariant.com/ClimateProtection



Clariant’s EnviCat N₂O-S catalyst (left) removes N₂O from the tail gas of nitric acid plants and converts it into harmless nitrogen and oxygen.

³ Source: United States Environmental Protection Agency (EPA)

⁴ Source: IPCC, 5th Assessment Report, “Climate Change 2014”

CORPORATE MEDIA RELATIONS

Jochen Dubiel

Phone +41 61 469 63 63
jochen.dubiel@clariant.com

Claudia Kamensky

Phone +41 61 469 63 63
claudia.kamensky@clariant.com

GLOBAL TRADE MEDIA RELATIONS

Stefanie Nehlsen

Phone +41 61 469 63 63
stefanie.nehlsen@clariant.com

Follow us on [Twitter](#), [Facebook](#), [LinkedIn](#), [Instagram](#).
Read our latest [blog](#) on The Moleculist.

EnviCat® IS A TRADEMARK OF CLARIANT REGISTERED IN MANY COUNTRIES.

www.clariant.com

Clariant is a focused, sustainable and innovative specialty chemical company based in Muttenz, near Basel/Switzerland. On 31 December 2020, the company employed a total workforce of 13 235. In the financial year 2020, Clariant recorded sales of CHF 3.860 billion for its continuing businesses. The company reports in three business areas: Care Chemicals, Catalysis and Natural Resources. Clariant's corporate strategy is led by the overarching purpose of 'Greater chemistry – between people and planet' and reflects the importance of connecting customer focus, innovation, sustainability, and people.

www.clariant.com/catalysts

Clariant's Catalysts business unit is a leading global developer and producer of catalysts for industrial processes. It has been part of the Catalysis business area of the Clariant Group since the acquisition of the German Süd-Chemie in 2011. Clariant Catalysts has a total of 14 production sites (incl. Joint Ventures), 7 sales offices, and 10 R&D and technical centers around the world. Approximately 2 044 employees serve customers across all regional markets. Aimed at delivering sustainable value to customers, Clariant's catalysts and adsorbents are designed to increase production throughput, lower energy consumption, and reduce hazardous emissions from industrial processes. The broad portfolio also includes products that enable the use of alternative feedstock for chemical and fuel production.

Press release and photography can be downloaded from www.clariant.com or www.PressReleaseFinder.com.