BASF Catalyst O3-81
Extrudates Catalysts for N₂O Decomposition

N₂O ("laughing gas") is a significant greenhouse gas. One ton of N₂O is judged to have the same impact as 310 tons of CO₂. BASF N₂O decomposition catalyst series O3-81 reduce N₂O especially from adipic acid plants.

Typical operation parameters:
- Temperature 450 - > 800 °C
- Pressure 1 - > 10 bar absolute
- N₂O inlet Typical 10 – 12 Vol % N₂O

Main composition:
- Activated CuO, ZnO, MgO and Al₂O₃
- Full 100 % active material, homogenous catalyst

Type and Packaging:
- O3-81 SS6 Star Strengths extrudates, approx. 6 mm diameter
- Density Approx. 0.9 kg/ltr
- Packaging 110 kg metal drums with PE inliner

Key Characteristics
- Highest activity and long lifetime
- Selective to N₂O
- Exothermal heat-up due to high N₂O decomposition
- Possibility to generate valuable steam from exothermal heat
- Commercial scale experience since 1997
- References worldwide
- Tailor-made designs and licenses
About Us

BASF’s Catalysts division is the world’s leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF’s Catalysts division develops unique, proprietary solutions that drive customer success.

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