

# BASF Catalyst O3-81

## Extrudates Catalysts for N<sub>2</sub>O Decomposition

N<sub>2</sub>O (“laughing gas”) is a significant green house gas. One ton of N<sub>2</sub>O is judged to have the same impact as 310 tons of CO<sub>2</sub>. BASF N<sub>2</sub>O decomposition catalyst series O3-81 reduce N<sub>2</sub>O especially from adipic acid plants.

### Typical operation parameters:

- Temperature 450 - > 800 °C
- Pressure 1 - > 10 bar absolute
- N<sub>2</sub>O inlet Typical 10 – 12 Vol % N<sub>2</sub>O

### Main composition:

- Activated CuO, ZnO, MgO and Al<sub>2</sub>O<sub>3</sub>
- 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 N<sub>2</sub>O
- Exothermal heat-up due to high N<sub>2</sub>O 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.

**BASF - We create chemistry**

### Americas

BASF Corporation  
25 Middlesex/Essex Turnpike  
Iselin, New Jersey, 08830, USA  
Tel : +1-732-205-5000  
Fax: +1-732-205-7725  
Email: [catalysts-america@basf.com](mailto:catalysts-america@basf.com)

### Asia Pacific

BASF (China) Company Limited  
300 Jiang Xin Sha Road,  
Pudong, Shanghai 200137  
P.R. China  
Tel: +86-21-2039 2549  
Fax: +86-21-2039 4800-2549  
Email: [catalysts-asia@basf.com](mailto:catalysts-asia@basf.com)

### Europe, Middle East, Africa

BASF De Meern BV Catalysts  
The Netherlands  
Tel: +31-30-666 9437  
Email: [catalysts-europe@basf.com](mailto:catalysts-europe@basf.com)

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