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Product Data Sheet

PuriStar[®] R3-16 T5x3

CuO/ZnO Tablets

BASF PuriStar[®] R3-16 is a high efficiency CuZn catalyst which is tailor-made for the purification of polymer-grade ethylene.

BASF PuriStar[®] R3-16 comes in tablet form with a nominal diameter of 5 mm and height of 3 mm (approx. 3/16" x 1/8").

Product Applications

R3-16 is typically used for the removal of molecular oxygen and/or CO from ethylene to very low levels. The ethylene is used primarily as monomer in the production of polyethylene (PE) or as co-monomer in polypropylene (PP) processes.

R3-16 can also provide removal of any trace acetylene, arsine, phosphine or sulfur (H₂S, COS or mercaptans) which may be present in the ethylene feed.

Depending on the process, PuriStar R3-16 can be used at temperatures up to 130°C (266°F).

The lifetime of PuriStar R3-16 catalyst depends on the application, the operating conditions, and the level of contaminants such as acetylene, arsine, sulfur, chlorine, silicon and mercury in the feed. Typical lifetimes range from 2 to 10 years or more.

PuriStar R3-16 can be stored for long times in its original containers, provided the drums or bags are kept indoors in a non-corrosive atmosphere.

Before being put into operation, R3-16 needs to be either dried or reduced depending on the application. Please contact BASF for further details.



Typical Properties

Chemical

Main Components CuO and ZnO

Balance Alumina and Promoters

Physical

Crush Strength Approx. 3 kg (6 lbs), side wall

Bulk Density ~ 1190 kg/m³ (74 lbs/ft³), tapped

~ 1100 kg/m³ (69 lbs/ft³) sock loaded

Packaging

- 980 kg net (2160 lbs) in 1150 liter super sacks (IBC flexible)
- 196 kg net (432 lbs) in 200-liter steel drums

Shipping Point

- Ludwigshafen, Germany
- Shanghai, P.R. China (starting 2018)

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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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

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

Europe, Middle East, Africa

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

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