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Product Data Sheet

PuriStar® R3-22

CuO/ZnO Tablets

BASF PuriStar® R3-22 is a high-performance material, designed for removal of Arsine, Phosphine and reactive Sulfur from Propylene containing streams.

BASF PuriStar® R3-22 comes in tablet form with a nominal diameter of 5 mm and height of 3 mm (approx. 3/16” x 1/8”).

Product Applications

Due to its improved recipe, PuriStar® R3-22 outperforms PuriStar® R3-12 in the removal of arsine, phosphine, H_2S and COS from process and product streams. It is intended to be used in the purification of refinery, chemical, and polymer grades of propylene. Typical applications include purification of propylene at the front end of cumene, Oxo-C4 and polypropylene units.

R3-22 can also be used, under certain conditions, as a guard bed to protect noble metal catalysts (e.g. MAPD hydrogenation catalysts), against poisoning by arsine and sulfur.

The operating temperature of R3-22 is typically in the range of ambient to 50°C (120°F). During drying or reduction procedures, temperatures up to 250°C (480°F) during short periods of time are possible without a significant reduction of the capacity of the material.

In addition, PuriStar® R3-22 can be used in the purification of carbon dixoide streams. For removal of COS from these streams, higher temperatures are required. Please contact BASF for more details.

Before using the material, a drying step is required. This can either be done via a special operation or on-stream. Please contact BASF for further details.

Typical Properties	
Chemical	
Main Components	CuO and ZnO
Balance	Alumina and Promoters
Physical	
Crush Strength	Approx. 7.0 kg (15 lbs), side wall
Bulk Density	~ 1550 kg/m³ (97 lbs/ft³), tapped ~ 1450 kg/m³ (90 lbs/ft³) sock loaded

Packaging (Typical)

- 980 kg net (2160 lbs) in 1150 liter super sacks (IBC flexible)
- Other packaging will be made available at a later time

Shipping Point

- Ludwigshafen, Germany

About Us

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts, adsorbents and custom catalysts. Priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

BASF's chemical catalysts and adsorbents business is part of the company's Performance Chemicals division. The division's portfolio also includes refinery catalysts, fuel and lubricant solutions, as well as oilfield chemicals and mining solutions. Customers from a variety of industries including Chemicals, Plastics, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions.

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Americas
BASF Corporation
Phone: +1-732-205-5000
Email: catalysts-americas@basf.com

Asia Pacific
BASF (China) Company Limited
Phone: +86-21-2039 2549
Email: catalysts-asia@basf.com

Europe, Middle East, Africa
BASF Services Europe GmbH
Phone: +49-30-2005 5000
Email: catalysts-europe@basf.com

www.chemical-catalysts-and-adsorbents.basf.com

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