

PuriStar[®] R3-12

CuO/ZnO Tablets

BASF PuriStar[®] R3-12 is a high-performance material, widely used for removal of Arsine, Phosphine and reactive Sulfur from Propylene containing streams.

BASF PuriStar[®] R3-12 comes in tablet form with a nominal diameter of 5 mm and height of 3 mm (approx. 3/16" x 1/8"). Alternatively, it can be produced in smaller 3 x 3 mm tablets.

Product Applications

Due to its high surface area and ultrafine copper crystallite size, PuriStar[®] R3-12 excels in the removal of arsine, phosphine, H₂S and COS from process and product streams. It is widely 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.

R3-12 can also be used as a guard bed to protect noble metal catalysts (e.g. MAPD hydrogenation catalysts), against poisoning by arsine and sulfur.

Depending on the process, PuriStar[®] R3-12 can be used at temperatures up to 250°C (480°F).

Besides R3-12, BASF offers an improved version of the material under the trade name PuriStar[®] R3-22. 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. Alternatively, BASF can also offer a pre-dried version of the material. Please contact BASF for further details.

Typical Properties

Chemical

Main Components	CuO and ZnO
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Balance	Alumina and Promoters
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Physical

Crush Strength	Approx. 7.0 kg (15 lbs), side wall
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~ 1250 kg/m³ (78 lbs/ft³),

tapped

Bulk Density	~ 1150 kg/m ³ (72 lbs/ft ³)
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~ 1150 kg/m³ (72 lbs/ft³)

sock loaded

Packaging (Typical)

- 980 kg net (2160 lbs) in 1150 liter super sacks (IBC flexible)
- 140 kg net (308.6 lbs) in 120 liter steel drums

Shipping Point (as is and pre-dried)

- Ludwigshafen, Germany
- Shanghai, P.R. China

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

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