

# PuriStar<sup>®</sup> R9-SR S3

## Alumina Based Adsorbent

**BASF adsorbent R9-SR is a spherical adsorbent for removing reactive sulfur components from hydrocarbon streams in the presence of hydrogen or multiple unsaturated components.**

### Product and Application

BASF PuriStar R9-SR is a newly developed, proprietary adsorbent aimed at replacing lead oxide containing adsorbents.

It is produced of alumina in spherical form with a nominal diameter of 3 mm (1/8"). It is designed to preferably remove trace levels of reactive sulfur components like H<sub>2</sub>S and COS from gaseous and liquid feedstocks and process streams.

R9-SR is applicable for the purification of hydrogen rich gas (e.g. cracked gases), where other metal oxides cannot be used due to their reactivity toward the hydrogen content in the gas stream.

Because R9-SR does not promote polymer formation, it is especially suitable for streams containing acetylenes or dienes, which tend to foul other types of guard bed materials. R9-SR is excellent for C2 and C3 guard beds in steam crackers.

For streams containing arsine and phosphine, BASF is offering PuriStar R9-PAR as alternative for lead oxide containing adsorbents.

A drying step is required for maximizing the removal efficiency of the adsorbent. Please contact BASF for further details.

### Operating Temperature

Process and composition dependent: typically, ambient to 60°C (140°F). The catalyst itself is stable at temperatures up to 350°C (660°F).

#### Typical Properties

**Bulk Density, g/cc** ~ 0.7

**lbs/ft<sup>3</sup>** ~ 41

#### Chemical Analysis

**Al<sub>2</sub>O<sub>3</sub> plus proprietary modifier wt. %** ~ 93

### Packaging

- 1150 l super sacks (Flexible FIBC) with 1 750 lbs net (793,787 kg)

### Shipping Point

- Vidalia, LA, U.S.A.

Other shipping points might be available on request.

## 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)

*PuriStar* is a trademark of BASF.

Although all statements and information in this publication are believed to be accurate and reliable, they are presented gratis and for guidance only, and risks and liability for results obtained by use of the products or application of the suggestions described are assumed by the user. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH. Statements or suggestions concerning possible use of the products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that toxicity data and safety measures are indicated or that other measures may not be required. © 2015 BASF