

# Selexsorb COS

## Smooth, spherical adsorbent for the removal of COS

**BASF Selexsorb® COS is a smooth, spherical adsorbent which is a standard in industry in selectively removing COS, CO<sub>2</sub>, H<sub>2</sub>S, and CS<sub>2</sub> from hydrocarbon streams**

BASF Selexsorb COS is available as 7 x 14 Tyler Mesh and 1/8 inch spheres.

### Applications

Selexsorb COS can be used in a wide variety of different applications. In the following some of these are indicated in more detail:

**1.** An important application is the use as adsorbent for the removal of CO<sub>2</sub> from ethylene in front of PE units. Levels as low as 20 ppb have been observed. Selexsorb COS is often used in combination with Selexsorb CD or CDL for the removal of water and oxygenates, like methanol.

**2.** Another application is the removal of COS from propylene in front of PP units. The removal of COS is an important part of the protection of newer generation Ziegler-Natta and metallocene based catalysts. When used in combination with PuriStar R3-12, COS levels of 10 ppb or less can easily be achieved. Selexsorb COS is often used in combination with Selexsorb CD or CDL.

**3.** Selexsorb COS is also used in the treatment of comonomers for removing COS and H<sub>2</sub>S impurities.

**4.** In on-purpose units producing propylene via dehydrogenation or metathesis, Selexorb COS is regularly used to remove COS or H<sub>2</sub>S.

**5.** Selexsorb COS is used to remove COS or CS<sub>2</sub> from olefinic C4 streams used in different applications in petrochemical or refinery units.

**6.** In catalytic reforming processes, Selexsorb COS is effective in adsorbing H<sub>2</sub>S and water from the H<sub>2</sub> recycle stream.

A significantly improved version of Selexsorb COS is now available under the trade name Selexsorb COS*i*. Please contact BASF for more details.

### Packaging

- 2000 lb (907,185 kg) super sacks
- 375 lb (170,098 kg) steel drums

### Chemical Composition (%)

Al <sub>2</sub> O <sub>3</sub> plus proprietary modifier	93.1
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LOI (250-1100° C)	6.5
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Typical Physical Properties	7 x 14 Tyler Mesh (2.0 mm)	1/8" (3.2mm)
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Surface Area, m <sup>2</sup> /g	275	260
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Crush Strength, lbs (kg)*	9 (4)	28 (13)
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Bulk Density, lbs/ft <sup>3</sup> (kg/m <sup>3</sup> )	49 (785)	49 (785)
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## 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](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 SE  
67056 Ludwigshafen, Germany  
Tel: +49-621-60-21153  
Fax: +49-621-60-43023  
Email: [catalysts-europe@basf.com](mailto:catalysts-europe@basf.com)

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