

Selexsorb[®] CD

Alumina based adsorbent for the removal of polar compounds

BASF Selexsorb[®] CD is custom formulated to provide optimum adsorption for several polar compounds (containing O, N or S) from hydrocarbon streams.

BASF Selexsorb[®] CD is available as spheres with nominal sizes of 1/16" (7 x 14 Mesh), 1/8" (4 x 7 Mesh) and 3/16" (3 x 5 Mesh). All Mesh sizes refer to the Tyler Mesh series.

Product Applications

1. Hydrocarbon feed streams to petroleum refining catalytic processes often contain oxygenated organic compounds and other trace contaminants which can cause catalyst deactivation and other process unit performance problems.

BASF Selexsorb[®] CD is an excellent adsorbent for the removal of alcohols, aldehydes, ketones, ethers, and various other carboxylic acids from the liquid hydrocarbon feed streams to isomerization and alkylation processes.

BASF Selexsorb[®] CD is also appropriate for the removal of water and mercaptans from these feed streams.

2. The C₄ raffinate stream from MTBE (methyl tertiary butyl ether) manufacturing processes contain oxygenates which often require removal to assure a contaminant-free feed stream to petroleum refining and petrochemical processes. Removal of oxygenates such as methanol, dimethyl ether, tertiary butyl alcohol and MTBE process is removal of nitrogen-based contaminants, such as acetonitrile and ammonia, from the C₄ feed stream.

3. BASF Selexsorb[®] CD adsorbent has been found to be outstanding in its ability to remove water and trace contaminants from carbon dioxide. The resultant high purity CO₂ is far superior to the product produced with conventional adsorbents.

4. BASF Selexsorb[®] CD is custom formulated to remove oxygenated organic compounds (alcohols, ethers, aldehydes, carbonyls, ketones, peroxides, etc.) from free monomer, feed comonomer, and recycle solvent streams in several polymer production processes, including polyethylene and polypropylene. Polymerization catalyst deactivation is minimized through removal of these contaminants with BASF's selective adsorbents.

Selexsorb[®] CD can also be used in combination with Selexsorb[®] COS or Selexsorb[®] COS*i*. For further information, please contact BASF.

The maximum temperature during regeneration should be limited to 340°C / 640°F.

Materials with improved performance compared to Selexsorb[®] CD are available under the trade names Selexsorb[®] CDL and CD*i*. Check out the respective product data sheets.

For proper handling of the material like regeneration or bringing in contact with olefins, technical guidelines are available. Please contact BASF for further details.

Packaging

- 1900 lb (861.826 kg) FIBC (super sacks)
- 300 lb (136.078 kg) steel drums

Shipping Point

Vidalia, LA, USA. or Natchez, MS, USA.

Chemical Composition (%)

Al₂O₃ plus proprietary modifier	95.1
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LOI (250-1100° C)	4.5
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Typical Physical Properties	7x14 Tyler Mesh (2.0mm)	1/8" (3.2mm)	3/16" (4.8 mm)
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Surface Area, m²/g	420	410	400
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Crush Strength, lbs (kg)	10 (5)	25 (11)	45 (20)
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Bulk Density, lbs/ft³ (kg/m³)	43 (689)	43.5 (697)	43.5 (697)
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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.

BASF - We create chemistry



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BASF-8571 Rev. 02/25