

Selexsorb[®] CDL

Alumina based adsorbent for the removal of polar compounds

BASF Selexsorb[®] CDL is custom formulated to provide optimum adsorption of a number of polar compounds from reactive olefinic streams.

BASF Selexsorb[®] CDL is available as spheres with nominal sizes of 7x14 Tyler mesh (approx. 1.6 mm) and 1/8" (approx. 3.2 mm).

Selexsorb[®] CDL provides the benefits of enhanced capacity for impurities with reduced surface activity. Both together provide for longer life and overall higher capacity even towards end of life. CDL is the preferred Selexsorb[®] material for removing polar contaminants from reactive process streams, especially ethylene, propylene and butenes. Typical contaminants to be removed with Selexsorb[®] CDL include water, oxygenates (alcohols, aldehydes, ketones, ethers, peroxides), mercaptans, sulfides and nitrogen-based molecules (ammonia, amines, nitriles).

Product Applications

1. BASF Selexsorb[®] CDL is custom formulated to remove trace contaminants from feed monomer (ethylene, propylene), feed comonomer (α -olefins) and recycle solvent streams in a number of polymer production processes including polyethylene and polypropylene. Polymerization catalyst deactivation is minimized through the removal of these contaminants with BASF's selective Adsorbents.

2. Removal of oxygenates from C4 raffinate stream used in metathesis processes is another important application of this adsorbent. The removal of the oxygenates ensures optimal catalyst activity and life. Examples of such oxygenates are methanol, dimethyl ether, tertiary butyl alcohol, acetaldehyde and ketones. In the presence of reactive olefinic

species Selexsorb[®] CDL offers better capacity and performance than Selexsorb[®] CD or CDX and thus is the preferred solution for these applications.

3. Hydrocarbon feed streams used in petrochemical or refining catalytic processes frequently contain trace contaminants that can adversely affect the performance of downstream catalysts. BASF Selexsorb[®] CDL is an excellent adsorbent for removing trace oxygenates, sulfides and mercaptans and other such species from feed streams to isomerization and alkylation processes.

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

Chemical Composition

Al ₂ O ₃ plus proprietary modified	95.5
LoI (250 – 1 100°C)	4.0

Typical Physical Properties

Surface Area, m ² /g	460
Crush Strength, kg (lbs)	2,3 (5) (7x14 Mesh) 7,7 (17) (1/8")
Bulk Density kg/m ³ (lbs/ft ³)	689 (43)

* These indicative properties do not represent process capabilities nor specifications.

For proper handling of the material, especially when bringing the adsorbent in contact with olefins, please contact BASF for further details.

Packaging

- FIBC (flexible intermediate bulk container), 1 900 lbs / 861,835 kg (7x14 Mesh) and 861,873 kg (1/8") net
- Steel drums 300 lbs / 136,078 kg net

Shipping Point

Vidalia, LA, USA, or Natchez, MS, USA
(BASF warehouse)

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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