



## ADS-12™ Adsorbent

### Refining Catalyst

#### Description

ADS-12 adsorbent is a nonregenerative adsorbent designed to remove sulfur compounds from hydrocarbon streams.

#### Application

ADS-12 adsorbent is used to meet stringent product sulfur specifications in hydrocarbon streams. It is used to protect refining catalysts, such as reforming and isomerization catalysts, from poisoning by trace sulfur compounds as well as from process upsets that may cause higher levels of sulfur to be present in the hydrocarbon stream. The product is effective in sulfur compound removal over a range of operating temperatures.

Potential uses include:

- Sulfur guard bed for light naphtha feed to an isomerization unit
- Sulfur guard bed for feed to a naphtha reforming unit
- Treating hydrocracked naphtha, which may contain recombination sulfur, destined for reforming or isomerization units
- Sulfur guard bed for a benzene saturation unit

For sulfur removal from lighter hydrocarbon streams, UOP recommends GB-217™ adsorbent.

#### Features and benefits

- ADS-12 adsorbent has the capability to remove hydrogen sulfide, mercaptans and disulfides from hydrocarbon streams. The level of sulfur removal is dependent upon the application.
- Sulfur contents of hydrocarbon streams are reduced to match stringent feedstock specifications, often less than 0.5 wt-ppm sulfur, for downstream processes containing precious metal catalysts.

- ADS-12 adsorbent has a sulfur loading capacity of up to eight weight percent, enabling long cycle times.
- ADS-12 adsorbent is not designed for regenerative service.

#### Experience

ADS-12 adsorbent was first used commercially in 2005.

#### Typical physical properties

Size <sup>†</sup>	7x14 mesh
ABD	50.0 lb/ft <sup>3</sup> (801 kg/m <sup>3</sup> )
Moisture content	<4 wt-%
Crush Strength*	6.5 lbs
Copper based adsorbent	

<sup>†</sup> Also available in 5x8 mesh.

\* Crush strength varies with the bead diameter. The crush strength listed is for an 8 mesh bead.

#### Packaging

Available in 55-gallon steel drums or quick load bags.

#### For more information

For more information, contact your local UOP representative or our Des Plaines sales office:

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