

Xylene Isomerization Catalyst - Ethylbenzene Dealkylation Type

Zataris™ catalyst is the newest xylene isomerization-ethylbenzene dealkylation Zeolyst catalyst with improved paraxylene yield and enables high benzene purity. The catalyst combines high activity for conversion of ethylbenzene into benzene with very low xylene losses.

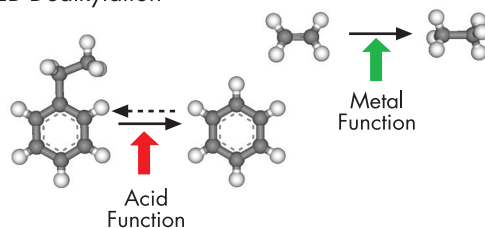
Zataris™ catalyst was developed in the labs of Shell Technology Centre Amsterdam, leveraging on our experience from former generation dealkylation catalyst (the Z883X series) and other catalyst technologies. This catalyst is manufactured and marketed by Zeolyst International.

Applications

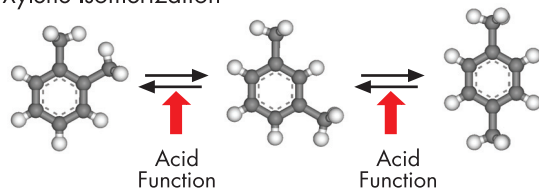
Zataris™ catalyst can be used in aromatics complexes when conversion of ethylbenzene to benzene is required in combination with isomerization of xylenes into the equilibrium composition. This catalyst can be operated with ethylbenzene conversions of up to 90% whilst achieving low xylene losses.

Zataris™ catalyst is designed to operate at high activity and selectivity, and is suitable to be used for catalyst replacement when debottlenecking.

EB Dealkylation



Xylene Isomerization



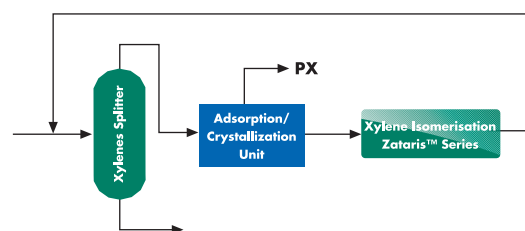
Feeds

Typical feeds processed over Zataris™ catalyst are C₈ aromatic streams depleted from paraxylene, usually effluent from a crystallizer or from an adsorption paraxylene recovery unit.

Zataris Advantages

(1) High Activity

High EB conversion (EBC) of up to 90% can be achieved.



(2) Low Xylene losses

Very low xylene losses at high EBC can be achieved. Losses are primarily due to formation of toluene and C₉ aromatics with minimal gas make, preserving the aromatics molecules.

(3) High Benzene Purity

On-specification benzene purity is produced using Zataris™ catalyst, which may help to relieve any bottleneck in the sulfolane extraction unit.

(4) Stable Catalyst Activity

Zataris™ catalyst is developed from proven technologies. Even under severe operating conditions, minimal deterioration in catalyst activity is observed. Catalyst cycle-length is expected to be at least 4 years.