Honeywell | UOP Catalysts

UOP EBZ-100 Catalyst

Regenerable zeolitic catalyst for poly-alkylbenzene transalkylation to ethylbenzene

Description

EBZ-100 catalyst is a solid, regenerable zeolite catalyst used for transalkylation of poly-alkylbenzenes with benzene to produce ethylbenzene (EB).

Applications

EBZ-100 catalyst is used in the Lummus/UOP EB*One*™ process for the production of EB from benzene and high-purity ethylene. EBZ-500 catalyst or EBZ-800TL catalyst is used in the liquid-phase alkylation reactor to combine benzene with ethylene to form EB. Although the selectivity to EB is very high, subsequent alkylation reactions do occur to form small amounts of di- and tri-ethylbenzene and heavier poly-alkylbenzenes. The poly-alkylbenzenes are separated from the EB product and recycled to a liquid-phase transalkylation reactor, where they are combined with benzene to form additional EB product. EBZ-100 catalyst is used in the transalkylation reactor.

Experience

EBZ-100 catalyst was commercialized in 1994 and is currently operating in 22 units throughout the world.

Typical physical properties (nominal)

Particle Shape	Extrudate
Nominal diameter, mm	1.7
Sock loaded ABD, kg/m^3	605
Metals	no precious metals

Packaging

- 55 U.S. gallon (210 liter) steel drums
- Net weight per drum of 115 kilograms

Safe Handling and Disposal

To ensure safe handling and disposal of this material, refer to the EBZ-100 catalyst MSDS, the Ruihua Engineering Operating Manual or contact your UOP technical representative.



EBZ-100 is a stable and regenerable zeolitic catalyst that reduces capital and operating expenses by striking a balance between poly-ethylbenzene (PEB) conversion and selective ethylbenzene (EB) yield.

FEATURES & BENEFITS

- Optimized for exceptional selectivity and stability in transalkylation service
- High activity and stability allow exceptionally long cycle lengths under normal commercial operating conditions.
- The choice of EBZ-500 or EBZ-800TL alkylation catalyst combined with EBZ-100 transalkylation catalyst in the EB*One* process can deliver high EB product purity
- Long cycle lengths
- Proven catalyst regenerability

For more information

www.uop.com

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