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EBZ-100™ Catalyst

Petrochemicals Catalyst

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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 EBOne™ process for production of EB from benzene and high-purity ethylene. EBZ-500™ catalyst or EBZ-500S™ 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.

Features and benefits

- EBZ-100 catalyst has been optimized for exceptional selectivity and stability in transalkylation service.
- EBZ-100 catalyst exhibits virtually no deactivation under normal commercial operating conditions.
- The combination of EBZ-500S catalyst and EBZ-100 catalysts in the EBOne process delivers EB product purity of 99.97 wt-% at an overall EB yield of 99.7 wt-%.
- Long cycle lengths – up to five years without regeneration.
- Proven regenerability – at least three catalyst cycles.

Experience

EBZ-100 catalyst was commercialized in 1994 and is currently operating in 18 units throughout the world.

Physical properties

Shape	Extrudate
Nominal diameter, mm	1.6
ABD, kg/m^3	585
Metals	no precious metals

Packaging

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

For more information

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

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