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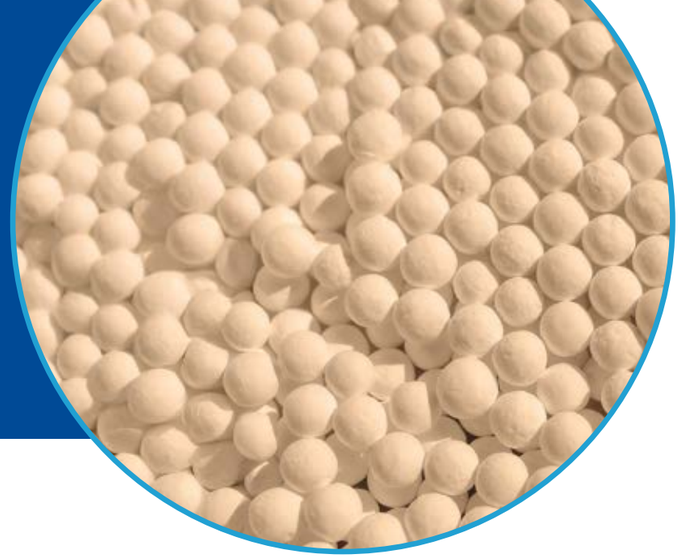
Chloride Guards

Portfolio of High-Performance Guards

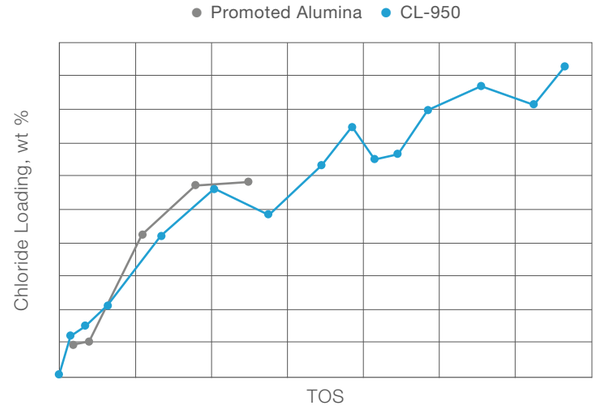
General

Removal of chlorides from process streams is an important technical challenge for refining and petrochemical industries. While the source and nature of chlorides varies, chlorides in process streams typically exist as inorganic (hydrochloric acid) and organic (chlorinated hydrocarbons) species. Presence of chlorides leads to numerous issues in downstream process equipment and pose significant safety risks in operations.

BASF high performance chloride guards is a comprehensive portfolio of adsorbents designed to purify wide range of gas and liquid streams.



Product Image CL-850



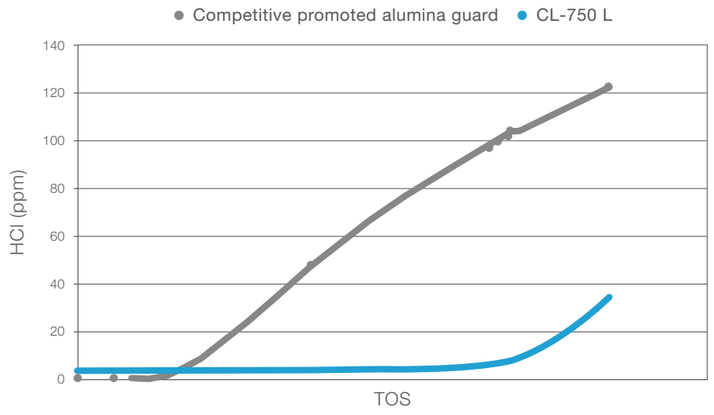
Performance comparison of BASF CL-950 and competitive promoted alumina chloride guard.

Portfolio

CL-750 L

BASF CL-750 L is a medium-density high pore volume guard particularly appropriate for use in vapor phase chloride traps in catalytic reforming processes where optimum HCl adsorption capacity and minimization of polymer formation is desirable. BASF CL-750 L is an excellent HCl scavenger for these streams at both ambient and elevated temperatures. The use of CL-750 L chloride adsorbent allows continuous operation without the problems associated with water washing of chloride deposits in process equipment. With its superior adsorption capacity and high porosity, CL-750 L is appropriate for the removal of HCl from a variety of vapor streams in numerous petrochemical production processes.

Product Image CL-750 L



Performance comparison of BASF CL-750 L and competitive promoted alumina chloride guard.

CL-950

CL-950 is a high-performance mixed metal oxide guard designed for removing halogens, predominantly chlorides, from gas and liquid streams. CL-950 is an advanced dehalogenation adsorbent featuring exceptional performance in removing hydrogen chloride from hydrocarbon streams. The guard uses engineered mixed metal oxide formulation to efficiently capture chlorides. CL-950 is an excellent HCl scavenger for gas streams in catalytic reforming and isomerization plants. Exceptional robustness under the typical process conditions, high stability and superior kinetics is what differentiates this product in the market. The adsorbent is efficient at ambient and elevated temperatures and allows continuous operation preventing deposition of harmful salts i.e. ammonia chloride. High mechanical integrity of the guard limits dust formation upon loading and unloading contributing to improved operational safety at the plant.

Product Image CL-950

CL-850

BASF CL-850 is a proprietary spherical microporous adsorbent, custom formulated to provide optimum adsorption of organic chlorides from vapor and liquid phase process streams. BASF CL-850 is available as spheres in nominal sizes of 2 and 4 mm.

Low levels of organic chloride compounds can be formed in catalytic reforming processes and then decompose in downstream equipment causing corrosion in heat exchangers, pumps, compressors and stabilizer towers. BASF CL-850 is particularly appropriate for use in liquid and vapor phase chloride traps where optimum organic chloride adsorption capacity is desired. CL-850 is an excellent scavenger for these streams at ambient temperatures and allows continuous operation without the problems associated with water washing of chloride deposits in process equipment. The guard also has substantial capacity for inorganic chlorides (HCl) but is typically used in combination with BASF CL-750 L or BASF CL-950 as inorganic species are more prevalent. If combined these products offer a total organic and inorganic chloride solution. The micropore structure and chemical composition of BASF CL-850 is tailored to maximize the adsorption capacity for organic chlorides from a variety of vapor and liquid phase streams in numerous petrochemical production processes.

Parameter		CL-750 L	CL-850	CL-950
Composition		Promoted Alumina	Zeolite	Mixed Metal Oxide
Function		HCl	R-Cl and HCl	HCl
Shape		Sphere	Sphere	Cylindrical extrudate
Sizes	Gases	3.2 mm (1/8")	4 mm	3 mm
	Liquids	1.6 mm (1/16“)	2 mm	
Bulk Density	kg/m³	680	700	700
Crush Strength	N/cm	40 N/cm for 1/8“ (3.2 mm)	50 N/cm for 4 mm	60 N/cm for 3 mm
	N/cm	25 N/cm for 1/16“ (1.6 mm)	35 N/cm for 2 mm	

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About Us

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts, adsorbents and custom catalysts. Priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

BASF's chemical catalysts and adsorbents business is part of the company's Performance Chemicals division. The division's portfolio also includes refinery catalysts, fuel and lubricant solutions, as well as oilfield chemicals and mining solutions. Customers from a variety of industries including Chemicals, Plastics, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions.

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