
[Isomerization Catalyst](#)

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An octane rating is given to the hydrocarbons used in gasoline for measuring how effectively the chemical compounds perform in an engine. A high-octane-rating hydrocarbon burns more efficiently than a hydrocarbon with a low octane rating. It is found that molecules with straight chains tend to pre-ignite and double explosion is generated when the petrol or air mixture is compressed.

In order to make petrol burn more smoothly in a modern engine, the oil industry endeavors to raise the octane rating of the molecules found in gasoline by rearranging straight chain molecules into their isomers with branched chains. In this process of isomerization, a platinum catalyst is used at about 250°C. In the presence of an isomerization catalyst, the isomerization process can convert normal paraffins into isoparaffins under certain operation conditions. During the chemical process, only structures of the organics are changed while the molecular formula remains the same.

Isomerization Catalyst IC-56

The IC-56 isomerization catalyst has molecular sieves acting as the carrier, and platinum or alumina as the active component. It comes in the form of a cylinder with diameter of 2mm.

Application

The isomerization catalyst is typically used for isomerization of C5-C6 light naphtha to increase the octane rating and gasoline production.

Physical Properties

Platinum (%)	0.32±0.02
Appearance	Cylinder
Particle Size (mm)	Φ2±0.2
Length (mm)	3 - 8
Surface Area (m ² /g)	400
Strength (N/particle)	80
Bulk Density (KG/m ³)	750±50

Operation Conditions

Feedstock	C5-C6
Pressure (MPa)	1.7
Temperature (°C)	250-270
Space Velocity (h ₋₁)	1.0
Hydrogen/Oil (mol)	2.6
Refinery Oil Capacity (m %)	C5 isomerization ratio >60 C6 isomerization ratio >80

Packing: Shrink wrap the isomerization catalyst in 200L steel drums lined with plastic bags, with 3 or 4 drums per pallet.

Chempack is a leading Chinese isomerization catalyst manufacturer and supplier founded in 1970. Since our beginning, we strive to produce quality products for worldwide customers through the use of internationally sophisticated technologies. Over the past 40 years of continuous efforts, our company has received the ISO9001:2000 certification due to its consistent focus on product improvement. With reliable quality and stable performance, our oxygen removal, alumina support ball, tower packing, etc. are becoming increasingly popular with customers from many countries, including Britain, Germany, Kuwait, Jordan, Iran, Thailand, New Zealand, and more. If you have the chemical product need, please feel free to contact us and try our products. We at Chempack are confident that you will be pleased with our superior products and complete service.

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