

# Purivate™ Select

**BASF Purivate™ Select is a Pt based catalyst in spherical form to selectively convert CO with O<sub>2</sub> in the presence of H<sub>2</sub>.**

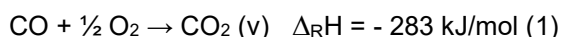
### General

Purivate™ Select is a catalyst in the form of spheres with a nominal size of 3 x 3 mm and with Platinum as active component. In addition, a promoter modifies the activity of the Pt to allow for selective oxidation of CO in the presence of H<sub>2</sub>.

### Product Application

Catalysts for the selective oxidation of CO in the presence of H<sub>2</sub> have originally been developed as a complementary process step to methanation in ammonia plants.

Select is used to remove carbon monoxide from hydrogen streams by conversion with oxygen according to the following chemical formulae



Due to its modification, the catalyst can suppress the reaction of hydrogen with oxygen, which can be described by the following reaction



Oxygen is added close to the stoichiometric amount needed for the conversion of carbon monoxide.

Due to the high exotherm of reaction (1) and (2), proper instrumentation and safety measures need to be put in place to assure full control of the reaction.

Typical reaction temperatures are in the range of 40 – 100°C / 100 – 210°F to allow for best selectivity. The maximum allowable temperature is 400°C / 750°F.

Purivate™ Select will replace 0.3% Pt/AT Selectoxo R4754.

### Special Operations

Purivate™ Select might gain maximum activity via a short activation procedure.

### Poisons

Purivate™ Select will last for long times if it is not subjected to poisoning by certain impurities. The principal poisons are sulfur and chlorine compounds as well as oil. These materials will deactivate and may eventually poison the catalyst permanently.

### Storage

Purivate™ Select does not deteriorate or constitute any hazard when stored in sealed containers. The containers should not be allowed to become damp or wet and should not be stored in contact with organic or easily oxidizing vapors.

### Target Properties

<b>Chemical Composition (dry basis)</b>	0.3 % wt./wt. Pt and promoter on Alumina
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### Typical Physical Properties

Packed Bulk Density, g/ml	0,66
Total Surface Area (BET), m <sup>2</sup> /g	90

### Packaging

- To be determined

### Point of Shipment

- Rome, Italy

## About Us

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