

# NanoSelect™ Pt

## Pt-210

### General

NanoSelect™ catalysts are characterized by unimodal metal particles on the nanometer scale. Nanotechnology is science and controlled engineering on the scale of nanometers (billionths of a meter). Reducing the size of metal particles to nanometers:

- Greatly increases the metal surface area available per gram.
- Boosts the catalytic activity.
- Demonstrates different catalytic behavior.

BASF used these basic principles to develop the innovative, patented NanoSelect™ technology. This technology utilizes a BASF reagent to combine reducing and stabilizing functions that produce highly unimodal, nano-sized metal colloids. These colloids can be deposited onto different support materials giving heterogeneous catalysts showing unique catalytic behaviors. BASF NanoSelect™ Pt catalysts have specifically been designed to deliver high activity at low metal content while showing very high selectivity in the hydrogenation reaction.

### Product Application

BASF's Pt-210 catalyst is recommended for use in selective hydrogenation of nitro groups while preventing the buildup of the potentially explosive hydroxylamine intermediate. In addition, this catalyst has been shown to be very efficient in the selective reduction of nitro groups in molecules also containing other functional groups like ketones, nitriles and halides as they are typically not affected by this catalyst.

### Availability

Research quantities are available by order through Strem Chemicals, Inc. at [www.strem.com/basf](http://www.strem.com/basf). Commercial quantities are available directly from BASF.

### Target Properties

Active Metal	Pt
Metal content, wt%	0.8
Type	Reduced, water-wet
Support	Carbon powder
Mean particle size	23 micron

## 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 and adsorbents, refinery catalysts and custom catalysts. In the process catalysts business, priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

The division's portfolio also includes battery materials and recycling solutions, as well as environmental catalysts and metal solutions. Customers from a variety of industries including Automotive & Transportation, Chemicals, Plastics or Energy & Resources benefit from our innovative solutions. Further information on BASF's Catalysts division is available on the Internet at [www.catalysts.basf.com](http://www.catalysts.basf.com).

**BASF - We create chemistry**

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