

# Metalyst® MC 911

## Activated Nickel Foam Catalyst

Metalyst® MC 9 series are Evonik's innovative catalyst solution for hydrogenations in gas and liquid phase fixed bed processes. These activated Nickel catalysts come in a unique foam shape that offers very high activity - due to its open structure - and light weight (low bulk density) at remarkable mechanical strength.

Advantages of Nickel foam catalysts:

- Non-pyrophoric - easy handling
- Mechanically stable, regularly shaped catalyst particles
- Low bulk density: substantially less metal required
- Low pressure drop in catalyst bed
- Increased activity due to highly porous structure
- High selectivity - significantly reduced by-products

This catalyst is used in liquid and gas phase operated as batch, semi-batch or continuous process. This product is suitable for fixed bed reactors and modified stirred tank reactors with most of the applications being hydrogenation reactions.

Applications:

- Hydrogenation of Olefins to Alkanes
- Hydrogenation of Butynediol to Butanediol
- Hydrogenation of Nitriles to the corresponding Amines
- Hydrogenation of Carbonyl Groups to the corresponding Alcohols

These reactions represent only some examples of the numerous applications this versatile catalyst can support.

### Physical-Chemical Properties

Properties	Unit	Value
Appearance	-	Black, uniform shaped, porous pieces under water
Ni content	wt. %	87
pH value	-	< 11
Dimensions	mm	4x4x2

### Activation

Not required.

### Packaging

- Metalyst® MC 911 is delivered as a bulk material under water in 120 liter steel drums.
- For large volumes special packaging is available upon request.

### Storage

- Drums should be protected from freezing, not exposed to direct sunlight and stored in a dry place between 5 and 30 °C (40 to 83 °F).

### Additional services

Depending on the business model, Evonik may provide the following additional services:

- Technical support around the globe including handling recommendations, safety data sheets, literature, samples, etc.
- Development of tailor-made catalysts in the context of an exclusive project

Evonik Industries has been a leader in chemical catalysts for more than 75 years. Now as before, customers all over the world rely on Evonik as a competent and trusted partner. Today Evonik is a fully integrated partner in catalysis, featuring homogeneous and heterogeneous catalysis. This makes Evonik unique, and gives our customers the flexibility of finding the most cost efficient solution for their needs. Working with Evonik means having direct access to our regional technical and commercial organization. With a passion for the catalyst business our experienced teams strive for quick response times and high quality tailored solutions to your catalyst topic.

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