

# Activelsom®

## OLEFIN ISOMERIZATION CATALYST

Activelsom® is a highly-active olefin isomerization catalyst useful in converting alpha olefins to higher value feedstock

Initially developed by ExxonMobil Chemicals, Activelsom® has been successfully deployed and fully validated in established supply chains. It is easy-to-use, long lasting, and highly selective in the presence of impurities and poisons. Suitable for batch or continuous processes, Activelsom® delivers significant improvements in throughput, safety, and cost for large-scale olefin isomerization without skeletal rearrangements or reactivity to common impurities.

### Vinyl Norbornene to Ethylidene Norbornene

Ethylidene norbornene (ENB) is a primary component of EPDM rubbers making ENB paramount to the automotive, construction, and tire industries. ENB is traditionally produced through vinyl norbornene (VNB) isomerization utilizing alkali metals dissolved in liquid ammonia at high temperature and pressure. Activelsom® produces high purity ENB at lower temperatures, higher throughputs and without pyrophoric materials or hazardous waste generation.



### PRODUCT ADVANTAGES

- > **YIELD:** Conversions and yields greater than 99+%.
- > **KINETICS:** Performs the fastest isomerizations at room temperature and pressure.
- > **EASE OF USE:** Does not use expensive catalysts or hazardous solvents.
- > **SAFETY:** Does not ignite in air or require ammonia and high pressures.
- > **COST:** Uses inexpensive starting materials and is produced with minimal waste.

### Alpha Olefin Isomerization

Alpha olefin isomerization provides a range of materials that are used as feedstock for the paper, personal care, and oilfield industries. Traditional methods for internal olefin production include supported acid catalysts, which generate skeletal rearrangements in addition to isomerization, and metal carbonyl catalysts, which are toxic and must be precipitated and filtered from the reaction media. Activelsom® provides the productivity and convenience of a heterogeneous catalyst at convenient operating temperatures, without skeletal rearrangement.



For more information, visit [www.signachem.com](http://www.signachem.com)  
or contact us at [sales@signachem.com](mailto:sales@signachem.com) or 212.933.4101



### PHYSICAL PROPERTIES

- > **PHYSICAL FORM:** Powder
- > **TAPPED DENSITY:** ~ 0.9 g/cm<sup>3</sup>
- > **TOTAL SODIUM:** 11.5% – 13.5%
- > **PARTICLE SIZE, AVERAGE:** 80 – 90 micron
- > **PARTICLE SIZE, RANGE:** >95% 10 – 200 micron
- > **CONVERSION:** 1 lb catalyst : >1,250 lb  $\alpha$ -olefin



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