New catalysts TK-569 HyBRIM™ and TK-565 HyBRIM™

Want to **make ULSG** from your FCC unit?

Topsoe's new superior FCC pretreatment catalysts provide high HDN as well as HDS

Legislations worldwide push towards lower sulfur emissions from diesel and gasoline vehicles, forcing refiners to rethink their fixed assets to meet new product specifications. Topsoe's new HyBRIM™ catalysts allow for more severe FCC feed pretreating which ultimately improves operation of the FCC unit leading to better products.

TK-569 HyBRIM™ offers the highest activity and is superior for deep HDN of feeds with high nitrogen content at medium to high pressures, enabling production of Tier 3 Ultra-low Sulfur Gasoline (ULSG) directly from the FCC unit. TK-565 HyBRIM™ is the cost-efficient counterpart for less restricted operation.

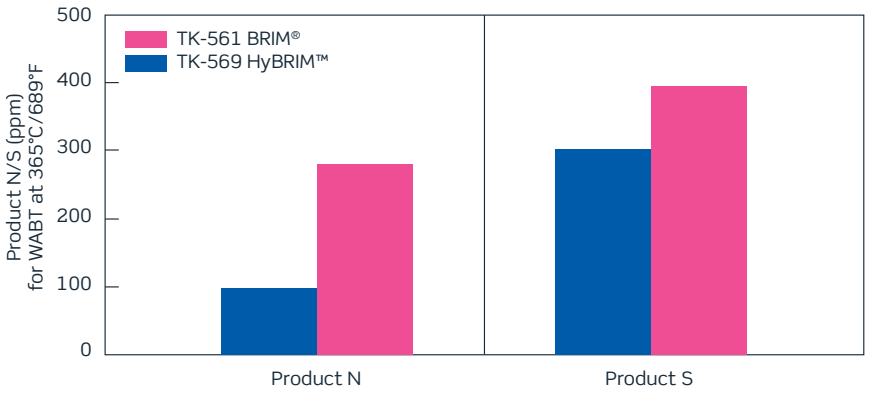
Unrivalled HDN and HDA activity
Many refiners focus on sulfur as the target product property in their FCC pretreatment units. Units using HyBRIM™ catalysts will experience a significantly improved HDN and HDA activity. This will ultimately lead to improved selectivity in the FCC unit and a more attractive yield pattern.

Poly-aromatic saturation ensures higher gasoline yield
In FCC pretreating using HyBRIM™ catalysts, the poly-aromatics are more easily saturated and converted to mono-aromatics. This process has a dual benefit, as it eases the severity of the FCC operation and provides a higher yield of the primary product; FCC gasoline.

Hydrogenation is key to boosting volume swell
Due to very high hydrogenation activity, the volume swell obtained with HyBRIM™ catalysts is significantly higher compared to conventional FCC pretreatment catalysts.

Unmatched stability achieved through years of research
Topsoe's HyBRIM™ catalysts build on Topsoe's advanced BRIM® technology and exhibit excellent stability even when processing cracked distillate fractions. The HyBRIM™ catalysts are equipped with an increased amount of BRIM® sites, resulting in long operating cycles due to a lower SOR temperature and a low deactivation rates of the catalyst.

HyBRIM™ catalysts



FCC pretreatment service - benchmark of TK-569 HyBRIM™ vs. last generation TK-561 BRIM®.

Advantages

- Unparalleled high HDS, HDN, and HDA activity
- Improved FCC gasoline yield through saturation of poly-aromatics
- Higher volume swell achived by hydrogenation
- Unbeaten catalyst stability

Feed	80/20 VGO/CGO
Sulfur, wt%	2.4
Nitrogen ppm	1,340
Density (SG/API)	0.9315/20.4

Test conditions	
Temperature	365°C/689°F
Pressure	80 bar/1,160 psi
LHSV	1.0

Get in touch today
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