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Top Ten Blendstocks For Turbocharged GasolineEngines

Bio-blendstocksWith Potential to Deliver the for Highest Engine Efficiency

Highlights of the Report:

A tiered process efficiently and effectively screened hundreds of blendstocks.

Ten blendstocks were identified with the potential to increase engine efficiency by 10 percent using the efficiency merit function.

- i-ButanoloCyclopentanone
- Di-isobutylene
- EthanoloFuran mixture
- Fusel alcohol mixture
- Methanol
- Prenol
- i-Propanol
- n-Propanol

Six of the blendstocks were determined to have the fewest barriers to adoption and use.

The blendstocks all have the potential to reduce life-cycle greenhouse gas emissions by at least 60 percent.

The top 10 blendstocks were all determined to have the potential to be produced at a competitive cost.

Co-Optima researchers identified barriers to adoption and key research gaps to be addressed in future research

Download Report: Gaspar,Daniel. 2019. Top Ten Blendstocks For Turbocharged GasolineEngines: Bio-blendstocksWith Potential to Deliver the for Highest Engine Efficiency. PNNL-28713,Pacific Northwest National Laboratory. https://www.osti.gov/servlets/purl/1567705