

CLAIMS:

1. A method for producing distillate fuel products, comprising:
exposing a distillate fuel boiling range feedstock having a T95 boiling point of about 650°F (343°C) to about 800°F (427°C) to a dewaxing catalyst comprising a molecular sieve, wherein the molecular sieve comprises ZSM-48 with a silica to alumina ratio of about 70 to 1 to about 110 to 1, and a metal hydrogenation component under effective dewaxing conditions to produce a dewaxed effluent having a cloud point that is reduced relative to a cloud point of the feedstock by at least about 10°F, the dewaxing catalyst having an amount of metal hydrogenation component comprising about 0.05 wt % to about 0.35 wt % of a Group VIII noble metal, wherein the feedstock has a sulfur content of about 500 wppm or less,
wherein an amount of cloud point reduction for the dewaxed effluent is within 10% of a cloud point reduction for an effluent formed when the feedstock is exposed, under the effective dewaxing conditions, to a dewaxing catalyst comprising the molecular sieve and at least about twice the amount of metal hydrogenation component, and
wherein an amount of hydrogen consumed during exposing the feedstock to the dewaxing catalyst is at least about 7.5% lower than an amount of hydrogen consumed for an effluent formed when the feedstock is exposed, under the effective dewaxing conditions, to a dewaxing catalyst comprising the molecular sieve and at least about twice the amount of metal hydrogenation component.
2. The method of claim 1, wherein the effective dewaxing conditions comprise a pressure of from about 200 psig (1.4 MPag) to about 1500 psig (10.4 MPag), a temperature of from about 500°F (260°C) to about 750°F (399°C), a hydrogen treat gas rate of about 500 scf/bbl (84 Nm³/m³) to about 4000 scf/bbl (674 Nm³/m³), and a space velocity of from about 0.3 hr⁻¹ to about 5.0 hr⁻¹.
3. The method of claim 1, further comprising exposing the feedstock to a hydrotreating catalyst to form a hydrotreated effluent having a sulfur content of about 100 wppm or less, wherein exposing a distillate fuel boiling range feedstock to a

dewaxing catalyst comprises exposing at least a portion of the hydrotreated effluent to the dewaxing catalyst.

4. The method of claim 3, wherein the effective hydrotreating conditions comprise a pressure of from about 200 psig (1.4 MPa) to about 3000 psig (20.7 MPa), a temperature of from about 500°F (260°C) to about 800°F (427°C), a hydrogen treat gas rate of about 500 SCF/B (84 Nm³/m³) to about 10000 SCF/B (1685 Nm³/m³) and a space velocity of from about 0.3 hr⁻¹ to about 5.0 hr⁻¹.

5. The method of claim 1, wherein the metal hydrogenation component comprises Pt, Pd, or a combination thereof.

6. The method of claim 1, wherein the dewaxing catalyst comprises about 0.05 wt % to about 0.3 wt % of the metal hydrogenation component.

7. The method of claim 1, wherein the feedstock a nitrogen content of about 100 wppm or less.

8. The method of claim 1, further comprising exposing the dewaxed effluent to a hydrofinishing catalyst under effective hydrofinishing conditions.

9. The method of claim 1, wherein the feedstock has an aromatics content of at least about 3 wt %.

10. The method of claim 1, wherein the amount of Group VIII noble metal in the dewaxing catalyst is from about 0.10 wt % to about 0.30 wt %.