CLAIMS:

1. A base stock composition comprising a Group III base stock having a number average molecular weight (M_n) of 700 g/mol to 2500 g/mol, a weight average molecular weight (M_w) of 1000 g/mol to 4000 g/mol, a polydispersity (M_w / M_n) of 1.3 to 1.6, a sulfur content of 0.03 wt% or less, an aromatics content of 10 wt% or less, a kinematic viscosity at 100°C of 14 cSt to 35 cSt, a kinematic viscosity at 40°C of 150 cSt to 400 cSt, and a viscosity index of 120 - 145.

2. The composition of claim 1, wherein the polydispersity is 1.4 to 1.5.

3. The composition of claim 1, wherein the number average molecular weight (M_n) is at least 1200 g/mol to 2500 g/mol.

4. The composition of claim 1, wherein the weight average molecular weight (M_w) is 1800 g/mol to 3500 g/mol.

5. The composition of claim 1, wherein the composition has a density of 0.83 g/cm^3 to 0.89 g/cm^3.

6. The composition of claim 1, wherein the composition has a) a kinematic viscosity at 40°C of 200 cSt to 400 cSt; b) a kinematic viscosity at 100°C of 20 cSt to 35 cSt; or c) a combination thereof.

7. The composition of claim 1, wherein the viscosity index is 125 to 145.

8. The composition of claim 1, wherein an average slope of temperature versus distilled weight%, between 20 wt% and 60 wt% distilled, for the composition is 2°C per 1 wt% to 6°C per 1 wt%, and wherein at least one window of 2 wt% of the temperature versus distilled weight%, between 20 wt% and 60 wt%, has a slope greater by at least 3°C per 1 wt% than the average slope of temperature versus distilled weight% between 20 wt% and 60 wt% distilled.

9. The composition of claim 1, wherein the composition has a pour point of 0°C or less.

10. The composition of claim 1, wherein the composition has a glass transition temperature of -50°C or less; or wherein the crystallization temperature is -20°C or less; or a combination thereof.