CLAIMS:

1. A lubricant base stock composition comprising a viscosity index of 80 or more; a saturates content of 95 wt% or more relative to a total weight of saturates and aromatics in the composition; a sulfur content of 300 wppm or less; a kinematic viscosity at 100°C of 8.5 cSt to 15 cSt; 80.0 wt% or more of total naphthenes relative to the total weight of saturates and aromatics in the composition; 40.0 wt% or more of 1-ring naphthenes relative to the total weight of saturates and aromatics in the composition; and 2.8 wt% or less of 4+-ring naphthenes relative to the total weight of saturates and aromatics in the composition.

2. The composition of claim 1, further comprising 13.5 epsilon carbon atoms or more per 100 carbon atoms in the composition.

3. The composition of claim 1, further comprising 1.9 wt% or less of 4-ring naphthenes relative to the total weight of saturates and aromatics in the composition.

4. The composition of claim 1, further comprising a cycloparaffin performance ratio of 1.20 to 1.34.

5. The composition of claim 1, further comprising a ratio of 1-ring naphthenes to 2+ring naphthenes of 1.0 or more.

6. The composition of claim 1, further comprising 0.82 terminal and pendant propyl groups or less per 100 carbon atoms of the composition.

7, The composition of claim 1, further comprising 2.79 alpha carbon atoms or more per 100 carbon atoms in the composition.

8. The composition of claim 1, wherein the composition comprises 41.0 wt% or more of 1-ring naphthenes relative to the total weight of saturates and aromatics in the composition.

9. The composition of claim 1, wherein the composition comprises 2.6 wt% or less of 4+-ring naphthenes relative to the total weight of saturates and aromatics in the composition; or wherein the composition comprises 9.5 wt% or less of 3+-ring naphthenes; or a combination thereof.

10. The composition of claim 1, wherein the composition comprises a kinematic viscosity at 100°C of 9.0 cSt to 14 cSt.

11. The composition of claim 1, wherein the composition comprises a viscosity index of 80 to 120.

12. The composition of claim 1, wherein the composition further comprises a pour point of -6°C or less.

13. A lubricating oil comprising the base stock blend of claim 1 and a minor amount of one or more additives chosen from an antiwear additive, a viscosity modifier, an antioxidant, a detergent, a dispersant, a pour point depressant, a corrosion inhibitor, a metal deactivator, a seal compatibility additive, a demulsifying agent, an anti-foam agent, inhibitor, an anti-rust additive, and combinations thereof.

14. The lubricating oil of claim 13, wherein the lubricating oil comprises at least one of an engine oil, an industrial lubricating oil, and a marine lubricating oil.