CLAIMS:

1. A naphthenic base oil composition comprising:

at least 40 wt% naphthenes, the naphthenic base oil having a viscosity index of at least 120, the naphthenic base oil having a viscosity at 100°C of at least 10 cSt.

2. The naphthenic base oil composition of claim 1, wherein the naphthenic base oil composition comprises at least 90 wt% saturated molecules.

3. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil composition comprises less than 0.03 wt% sulfur.

4. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil composition has a pour point of -15°C or less.

5. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil composition has a pour point of -18°C or less.

6. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil composition has a pour point of -20°C or less.

7. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil composition has a viscosity index of about 120 to about 160.

8. The naphthenic base oil composition of claim 7, wherein the naphthenic base oil composition has a viscosity index of about 140 to about 160.

9. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil has a viscosity at 100°C of about 15 cSt to about 50 cSt.

10. The naphthenic base oil composition of claim 9, wherein the naphthenic base oil has a viscosity at 100°C of about 20 cSt to about 50 cSt.

11. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil has at least 25 wt % 3+ ring naphthenes.

12. The naphthenic base oil composition of claim 11, wherein the naphthenic base oil has at least 35 wt % 3+ ring naphthenes.

13. The naphthenic base oil composition of claim 12, wherein the naphthenic base oil has at least 40 wt % 3+ ring naphthenes.

14. The naphthenic base oil composition of claim 2, wherein the naphthenic base oil has a T5 boiling point of at least 370°C.

15. The naphthenic base oil composition of claim 2, wherein the naphthenes are 2-4 ring naphthenes having linear sidechains.

16. A naphthenic base oil composition comprising:

at least 20 wt% 3+ ring naphthenes, the naphthenic base oil having a viscosity of at least 15 cSt at 100°C and a viscosity index of about 80 to about 120.

17. The naphthenic base oil of claim 16, wherein the naphthenic base oil has at least 35 wt% 3+ ring naphthenes.

18. The naphthenic base oil composition of claim 17, wherein the naphthenic base oil has at least 40 wt% 3+ ring naphthenes.

19. The naphthenic base oil composition of claim 16, wherein the naphthenic base oil has a viscosity at 100°C of about 20 cSt to about 50 cSt.

20. The naphthenic base oil composition of claim 16, wherein the naphthenes have linear sidechains.