What is claimed is:

1. A lubricating oil composition comprising:

greater than 50 wt.% of a base oil of lubricating viscosity, based on a total weight of the lubricating oil composition;

one or more overbased calcium sulfonate detergents having a total base number of greater than 225 mg KOH/g, measured by the method of ASTM D-2896;

one or more overbased calcium phenate detergents having a total base number of greater than 170 mg KOH/g, measured by the method of ASTM D-2896; and

one or more overbased magnesium-containing detergents; and ;

wherein a ratio of the amount of calcium in ppm by weight, based on the total weight of the lubricating oil composition to a total base number of the lubricating oil composition measured by the method of ASTM D-2896, is less than 170;

a ratio of magnesium in ppm by weight, based on a total weight of the lubricating oil composition, to total soap content in wt.%, based on a total weight of the lubricating oil composition, is greater than 700;

an amount of boron in the lubricating oil composition is up to 75 ppm by weight, based on the total weight of the lubricating oil composition; and

an amount of molybdenum in the lubricating oil composition is less than 330 ppm by weight, based on the total weight of the lubricating oil composition.

2. The lubricating oil composition of claim 1, wherein the base oil is at least one selected from the group consisting of a Group II base oil, a Group III base oil, a Group IV base oil and a Group V base oil.

3. The lubricating oil composition of claim 1, wherein the lubricating oil composition is an engine oil composition and is effective to reduce a number of low-speed pre-ignition events in a boosted internal combustion engine lubricated with the engine oil composition relative to a number of low-speed pre-ignition events in the same engine lubricated with reference lubricating oil C-1.

4. The engine oil composition of claim 3, wherein the reduction in the number of low-speed pre-ignition events is greater than a 50% reduction and the low-speed pre-ignition events are low-speed pre-ignition counts during 25,000 engine cycles, wherein the engine is operated at 2000 revolutions per minute with a brake mean effective pressure of 1,800 kPa.

5. The engine oil composition of claim 3, wherein the reduction in the number of low-speed pre-ignition events is greater than an 85% reduction and the low-speed pre-ignition events are low-speed pre-ignition counts during 25,000 engine cycles, wherein the engine is operated at 2000 revolutions per minute with a brake mean effective pressure of 1,800 kPa.

6. The lubricating oil composition of claim 1, wherein the one or more overbased magnesium-containing detergents have a total base number of greater than 225 mg KOH/g and are selected from the group consisting of an overbased magnesium sulfonate detergent, an overbased magnesium phenate detergent, an overbased magnesium salicylate detergent and mixtures thereof.

7. The lubricating oil composition of claim 1, wherein the total magnesium provided to the lubricating oil composition by the overbased magnesium detergent is from 100 ppm to 1500 ppm, by weight, based on the total weight of the lubricating oil composition.

8. The lubricating oil composition of claim 1, wherein the total calcium provided to the lubricating oil composition by the combination of the one or more overbased calcium phenate and the one or more overbased calcium sulfonate detergents is from 800 ppm to 2400 ppm, by weight, based on the total weight of the lubricating oil composition.

9. The lubricating oil composition of claim 1, wherein the lubricating oil composition has a total base number of greater than 7.0 mg KOH/g of the lubricating oil composition.

10. The lubricating oil composition of claim 1, wherein the ratio of calcium in ppm to the total base number of the lubricating oil composition is 50 to 165.

11. The lubricating oil composition of claim 1, wherein the ratio of magnesium in ppm to total soap content in wt.% is 700 to 2500.

12. The lubricating oil composition of claim 1, wherein the amount of molybdenum in the

lubricating oil composition is from 1 to 200 ppm by weight.

13. The lubricating oil composition of claim 1, wherein a total TBN contribution of all detergents to the lubricating oil composition is greater than 4.5 mg KOH/g of the lubricating oil composition.

14. The lubricating oil composition of claim 1, wherein the lubricating oil composition is an engine oil composition that passes the Ball Rust test, as determined by the method of ASTM D-6557.

15. A method for reducing a number of low-speed pre-ignition events in a boosted internal combustion engine comprising steps of:

lubricating a boosted internal combustion engine with a lubricating oil composition comprising:

greater than 50 wt.% of a base oil of lubricating viscosity, based on a total weight of the lubricating oil composition;

one or more overbased calcium sulfonate detergents having a total base number of greater than 225 mg KOH/g,

one or more overbased calcium phenate detergents having a total base number of greater than 170 mg KOH/g, and

one or more overbased magnesium-containing detergents; and

wherein a ratio of an amount of calcium in ppm to a total base number of the lubricating oil composition measured by the method of ASTM D-2896 is less than 170;

a ratio of magnesium in ppm by weight, based on a total weight of the lubricating oil composition to total soap content in wt.%, based on a total weight of the lubricating oil composition is greater than 700;

an amount of boron in the lubricating oil composition is up to 75 ppm by weight, based on a total weight of the lubricating oil composition; and

an amount of molybdenum in the lubricating oil composition is less than 330 ppm by weight, based on a total weight of the lubricating oil composition; and

operating the engine lubricated with the lubricating oil composition.

16. The method of claim 15, wherein the lubricating oil composition is an engine oil composition which passes a Ball Rust Test according to ASTM D6557 and the number of low-speed pre-ignition events in the boosted internal combustion engine lubricated with the engine oil composition are reduced

relative to a number of low-speed pre-ignition events in the same engine lubricated with reference lubricating oil C-1.

17. The method of claim 15, wherein the lubricating oil composition is an engine oil composition and the number of low-speed pre-ignition events are based on low-speed pre-ignition counts during 25,000 engine cycles, wherein the engine is operated at 2000 revolutions per minute with a brake mean effective pressure of 1,800 kPa.

18. The method of claim 15, wherein an amount of the one or more magnesium-containing detergents is not more than 2 wt.%, based on the total weight of the lubricating oil composition.

19. The method of claim 15, wherein an amount of overbased calcium sulfonate and an amount of overbased calcium phenate combine to make up not more than 2.0 wt.% of the total weight of the lubricating oil composition.

20. The method of claim 15, wherein the lubricating step lubricates a combustion chamber or cylinder walls of a spark-ignited direct injection engine provided with a turbocharger or a supercharger or spark-ignited port fuel injection internal combustion engine provided with a turbocharger or a supercharger.

21. The method of claim 20, further comprising a step of measuring the number of low-speed pre-ignition events of the internal combustion engine lubricated with the lubricating oil composition.

22. The method of claim 15, wherein the lubricating oil composition has a total base number of greater than 7.0 mg KOH/g of the lubricating oil composition, as measured by the method of ASTM D-2896.