diesel engine comprising lubricating the cylinder with a lubricating oil composition having a TBN of about 5 to about 120 comprising:

(a) a major amount of a base oil of lubricating viscosity;

(b) a first detergent that is an alkaline earth metal salt of an overbased C_{10-40} alkylarylsulfonate detergent; and

(c) a second detergent that is an alkaline earth metal salt of an overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.

[0015a] In an aspect, there is provided a marine diesel lubricant composition having a TBN from about 5 to about 120 comprising:

(a) a major amount of a base oil of lubricating viscosity;

(b) a first detergent that is an alkaline earth metal salt of an overbased C_{10-40} alkyltoluenesulfonate detergent; and

(c) a second detergent that is an alkaline earth metal salt of an overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.

[0015b] In another aspect, there is provided a method of operating a marine diesel engine comprising lubricating the engine with a lubricating oil composition having a TBN of from about 5 to about 120 comprising:

(a) a major amount of a base oil of lubricating viscosity;

(b) a first detergent that is an alkaline earth metal salt of overbased C_{10-40} alkyltoluenesulfonate detergent; and

(c) a second detergent that is an alkaline earth metal salt of overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.

[0015c] In another aspect, there is provided a method of lubricating the cylinder of a marine diesel engine comprising lubricating the cylinder with a lubricating oil composition having a TBN of about 5 to about 120 comprising:

(a) a major amount of a base oil of lubricating viscosity;

(b) a first detergent that is an alkaline earth metal salt of an overbased C_{10-40} alkyltoluenesulfonate detergent; and

(c) a second detergent that is an alkaline earth metal salt of an overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.

[0016] In one embodiment, the alkaline earth metal in the overbased alkaline earth metal alkylaryl sulfonate detergent and the overbased alkaline earth metal isomerized normal alpha olefin based sulfurized phenate detergent is calcium.

[0017] In one embodiment, the alkyl substituent of the overbased isomerized normal alpha olefin based phenate detergent is made by isomerizing a mixture of C_{14}-C_{24} normal alpha olefins.

[0018] In one embodiment, the weight ratio of the overbased alkaline earth metal alkylaryl sulfonate detergent to the overbased alkaline earth metal isomerized normal alpha olefin based sulfurized phenate detergent ranges from 1:9 to 9:1.

DETAILED DESCRIPTION OF THE INVENTION

[0019] In its broadest aspect, the present invention relates to a lubricating oil composition for a marine application.

[0020] **Definitions:**

[0021] To facilitate the understanding of the subject matter disclosed herein, a number of terms, abbreviations or other shorthand as used herein are defined below. Any term, abbreviation or shorthand not defined is understood to have the ordinary meaning used by a skilled artisan contemporaneous with the submission of this application.

[0022] The term "major amount" as used herein refers to a concentration within the lubricating oil composition of at least about 40 wt. %. In one embodiment, the term "major amount" refers to a concentration within the lubricating oil composition of at least about 50 wt. %. In another embodiment, the term "major amount" refers to a concentration within the lubricating oil composition of at least about 60 wt. %. In yet another embodiment, the term "major amount" refers to a concentration within the lubricating oil composition of at least about 70 wt. %. In still another embodiment, the term "major amount" refers to a

What is claimed is:

1. A marine diesel lubricant composition having a TBN from about 5 to about 120 comprising:

   (a) a major amount of a base oil of lubricating viscosity;

   (b) a first detergent that is an alkaline earth metal salt of an overbased C_{10-40} alkyltoluenesulfonate detergent; and

   (c) a second detergent that is an alkaline earth metal salt of an overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

   wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.

2. The composition of claim 1, wherein the overbased alkyltoluenesulfonate detergent and the overbased isomerized normal alpha olefin based phenate detergent are both an overbased calcium salt.

3. The composition of claim 1, wherein the alkyl substituent of the overbased isomerized normal alpha olefin based phenate detergent is made by isomerizing a C_{14}-C_{24} normal alpha olefin.

4. The composition of claim 1, wherein the base oil of lubricating viscosity is a Group I base oil.

5. The composition of claim 1, wherein the base oil of lubricating viscosity is a Group II base oil.

6. The composition of claim 1, wherein the composition does not contain a glycerol ester or a borated glycerol ester.

7. The composition of claim 1, wherein overbased isomerized normal alpha olefin based phenate detergent is an alkylated hydroxyl compound wherein the alkyl substituent of the hydroxyl compound is a residue of at least one olefin having from about 15 to about 99 wt. % branching.

8. The composition of claim1, wherein the overbased isomerized normal alpha olefin based phenate detergent is an alkylated hydroxyl compound wherein the alkyl substituent of the hydroxyl compound is a residue of at least one olefin having from about 15 to about 99 wt. % branching.

9. A method of operating a marine diesel engine comprising lubricating the engine with a lubricating oil composition having a TBN of from about 5 to about 120 comprising:

(a) a major amount of a base oil of lubricating viscosity;

(b) a first detergent that is an alkaline earth metal salt of overbased C_{10-40} alkyltoluenesulfonate detergent; and

(c) a second detergent that is an alkaline earth metal salt of overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.

10. A method of lubricating the cylinder of a marine diesel engine comprising lubricating the cylinder with a lubricating oil composition having a TBN of about 5 to about 120 comprising:

(a) a major amount of a base oil of lubricating viscosity;

(b) a first detergent that is an alkaline earth metal salt of an overbased C_{10-40} alkyltoluenesulfonate detergent; and

(c) a second detergent that is an alkaline earth metal salt of an overbased isomerized C_{10-40} normal alpha olefin based sulfurized phenate detergent;

wherein the weight ratio of the first detergent to the second detergent ranges from 1:9 to 9:1.