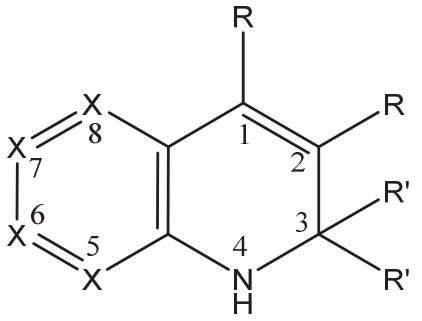
CLAIMS

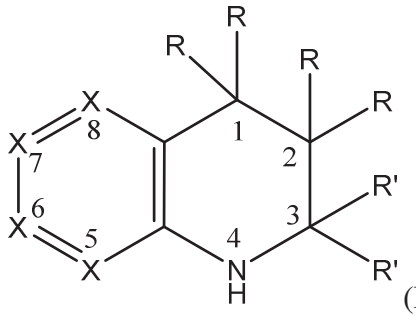
1. A lubricant composition comprising:

a base oil present in an amount of greater than 70 parts by weight per 100 parts by weight of said lubricant composition; and

an antioxidant having the structure:



(A); or



(B),

wherein each X is independently C-A or N, so long as at least one X is N but no more than two of X are N; and

wherein A is H, cyano or an electron donating group that:

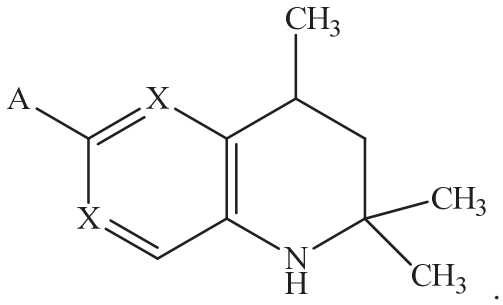
(1) has an atom having at least one lone pair of electrons that is bonded directly to the aromatic ring; or

(2) is an aryl group or alkyl group; and

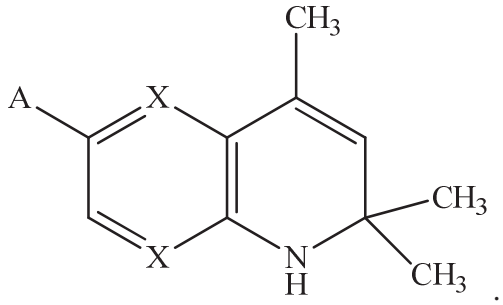
wherein each R is independently H, an alkyl group, or aryl group and each R' is independently an alkyl group or an aryl group,

with the proviso that in structure (A) when the X in the 8 position is N, at least one of the following substitutions is present: (i) at least one A is not H, (ii) another X is N, or (iii) the R attached to the carbon in the 2 position is not H.

2. The lubricant composition of claim 1 wherein said antioxidant has the structure:



3. The lubricant composition of claim 1 wherein said antioxidant has the structure:



4. The lubricant composition of claim 1 wherein A is an electron donating group that has an oxygen atom or nitrogen atom that is bonded directly to the aromatic ring.

5. The lubricant composition of claim 1 wherein said electron donating group is –NR"2, -NH2, -OH, -OR", -NHCOR", or –OCOR", wherein each R" is independently an alkyl group having 1 to 10 carbon atoms.

6. The lubricant composition of claim 1 wherein said electron donating group is $–NR"_2$, wherein each R" is an alkyl group having 1 to 10 carbon atoms.

7. The lubricant composition of claim 1 wherein said electron donating group is $-NH_2$.

8. The lubricant composition of claim 1 wherein said electron donating group is -OH.

9. The lubricant composition of claim 1 wherein said electron donating group is –OR", wherein R" is an alkyl group having 1 to 10 carbon atoms.

10. The lubricant composition of claim 1 wherein said electron donating group is –NHCOR", wherein R" is an alkyl group having 1 to 10 carbon atoms.

11. The lubricant composition of claim 1 wherein said electron donating group is –OCOR", wherein R" is an alkyl group having 1 to 10 carbon atoms.

12. The lubricant composition of claim 1 wherein said electron donating group is an alkyl group having 1 to 20 carbon atoms.

13. The lubricant composition of claim 1 wherein said electron donating group is an aryl group.

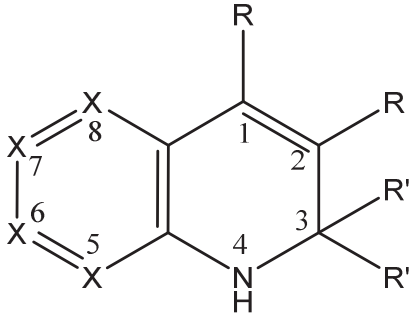
14. The lubricant composition of claim 1 wherein two of X are N.

15. The lubricant composition of claim 1 wherein said antioxidant is present in an amount of from 0.1 to 2 parts by weight per 100 parts by weight of said lubricant composition.

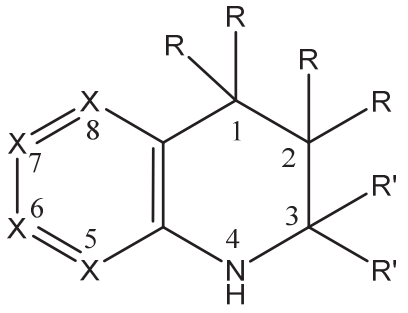
16. The lubricant composition of claim 1 wherein said base oil is further defined as an API Group I, Group II or Group III oil.

17. An additive concentrate package comprising:

an antioxidant having the structure:



(A); or



(B),

wherein each X is independently C-A or N, so long as at least one X is N but no more than two of X are N; and

wherein A is H, cyano or an electron donating group that:

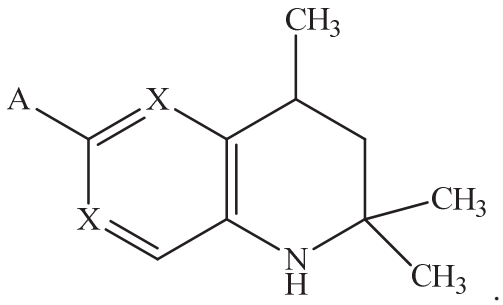
(1) has an atom having at least one lone pair of electrons that is bonded directly to the aromatic ring; or

(2) is an aryl group or alkyl group; and

wherein each R is independently H, an alkyl group, or aryl group and each R' is independently an alkyl group or an aryl group,

with the proviso that in structure (A) when the X in the 8 position is N, at least one of the following substitutions is present: (i) at least one A is not H, (ii) another X is N, or (iii) the R attached to the carbon in the 2 position is not H.

18. The antioxidant of claim 17 having the structure:



.