CLAIMS

WHAT IS CLAIMED IS

1. A lubricant composition comprising:

a) a first polysulfide extreme pressure agent comprising a mixture of C2-C6 polysulfides including a majority of trisulfides, wherein the first polysulfide has a structure of the formula R_1-S_x-R_2, wherein R_1 and R_2, are independently, a C2 to C6 hydrocarbyl group and x is an integer of at least 2 with a majority of x being 3;

b) a second polysulfide extreme pressure agent comprising a mixture of C10-C14 polysulfides including a majority of trisulfides, wherein the second polysulfide has a structure of the formula R_3-S_y-R_4, wherein R_3 and R_4, are independently, a C10 to C14 hydrocarbyl group and y is an integer of at least 2 with a majority of y being 3; and

wherein a weight ratio of sulfur contributed by the first polysulfide and the second polysulfide is about 0.3 to about 0.8.

2. The lubricant composition of claim 1, wherein said first and said second polysulfide provide between about 0.2 to about 0.5 weight percent sulfur to the lubricating composition.

3. The lubricant composition of claim 2, wherein the first polysulfide has about 40 to about 50 weight percent sulfur and the second polysulfide has about 18 to about 30 weight percent sulfur.

4. The lubricant composition of claim 1, wherein the first polysulfide has about 1 to about 10 mol percent disulfide and about 51 to about 95 mol percent trisulfide.

5. The lubricant composition of claim 1, wherein the second polysulfide has about 1 to about 10 mol percent disulfide and about 51 to about 95 mol percent trisulfide.

6. The lubricant composition of claim 1, wherein R_1 and R_2, are independently, a C4 to C6 hydrocarbyl group.

7. The lubricant composition of claim 6, wherein R_1 and R_2 are each C4 hydrocarbyl groups.

8. The lubricant composition of claim 1, wherein the first polysulfide includes di-tert-butyl polysulfide.

9. The lubricant composition of claim 1, wherein R_3 and R_4 are each C12 hydrocarbyl groups.

10. The lubricant composition of claim 1, wherein the second polysulfide includes di-tert-dodecyl polysulfide

11. The lubricant composition of claim 1, wherein the lubricant composition has less than about 30 weight percent sulfur loss as measured pursuant to ASTM D2893 and greater than about 200 kgf pursuant to a 4-ball test of ASTM D2596.

12. The lubricant composition of claim 1, further comprising about 0.2 to about 0.4 weight percent of the first polysulfide and about 0.8 to about 1.2 weight percent of the second polysulfide.

13. The lubricant composition of claim 1, further comprising a weight percent ratio of the first polysulfide to the second polysulfide of about 0.2 to about 0.38.

14. A method of lubricating a driveline, the method comprising lubricating a driveline component with a lubricating composition including a first polysulfide extreme pressure agent comprising a mixture of C2-C6 polysulfides with a majority of trisulfides, wherein the first polysulfide has a structure of the formula R_1-S_x-R_2, wherein R_1 and R_2, are independently, a C2 to C6 hydrocarbyl group and x is an integer of at least 2 with a majority of x being 3, and a second polysulfide extreme pressure agent comprising a mixture of C10-C14 polysulfides with a majority of trisulfides, wherein the second polysulfide has a structure of the

formula R_3-S_y-R_4, wherein R_3 and R_4, are independently, a C10 to C14 hydrocarbyl group and y is an integer of at least 2 with a majority of y being 3, and wherein a weight ratio of sulfur contributed by the first polysulfide and the second polysulfide is about 0.3 to about 0.8.

15. The method of claim 14, wherein said first and said second polysulfide provide between about 0.2 to about 0.5 weight percent sulfur to the lubricating composition.

16. The method of claim 14, wherein R_1 and R_2, are independently, a C4 to C6 hydrocarbyl group.

17. The method of claim 14, wherein the first polysulfide includes di-tert-butyl polysulfide.

18. The method of claim 17, wherein the second polysulfide includes di-tert-dodecyl polysulfide.

19. The method of claim 14, wherein the lubricant composition has less than about 30 weight percent sulfur loss as measured pursuant to ASTM D2893 and greater than about 200 kgf pursuant to a 4-ball test of ASTM D2596.

20. The method of claim 18, wherein the lubricant composition has less than about 30 weight percent sulfur loss as measured pursuant to ASTM D2893 and greater than about 200 kgf pursuant to a 4-ball test of ASTM D2596.