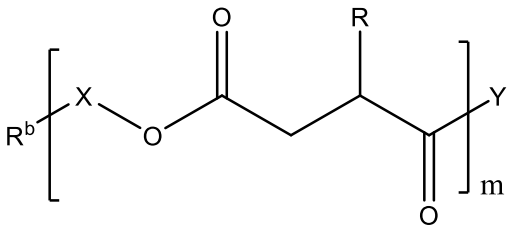
WHAT IS CLAIMED IS:

1. A lubricating oil composition comprising

a major amount of a base oil;

about 0.001 to about 0.15 weight percent of an emulsifying agent including a compound of Formula I



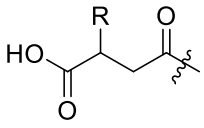
Formula I

wherein

each X is independently a polyalkylene oxide group of the formula $–[OA]_p–$;

Y is a hydroxyl group or a polyalkylene oxide group of the formula $–[OA]_p–OH$;

each A is independently an alkylene selected from the group consisting of ethylene, propylene, and butylene, and mixtures thereof;

R^b is H or a chemical moiety having the structure 

;

R is a linear or branched aliphatic group having a number average molecular weight of about 750 to about 2500; and

p is an integer to independently provide each X and/or each Y with a number average molecular weight of about 150 to about 250; and

m is an integer to provide a weight average molecular weight of the compound of Formula I from about 7,000 to about 50,000.

2. The lubricating oil composition of claim 1, wherein p is an integer which provides a polyalkylene oxide group with a number average molecular weight from about 150 to about 200.

3. The lubricating oil composition of claim 1, wherein the compound of Formula I has a weight average molecular weight of about 10,000 to about 15,000.

4. The lubricating oil composition of claim 1, wherein R has a number average molecular weight of about 950 to about 2300.

5. The lubricating oil composition of claim 1, wherein the lubricating oil composition includes about 0.001 to about 0.1 weight percent of the compound of Formula I.

6. The lubricating oil composition of claim 1, wherein the emulsifying agent of Formula I is produced from a catalyzed reaction consisting essentially of a polyalkylene glycol reacted with a dicarboxylic acid or anhydride of a dicarboxylic acid.

7. The lubricating oil composition of claim 6, wherein the catalyzed reaction includes a polyisobutylene succinic anhydride and wherein the polyisobutylene group thereof has a number average molecular weight of about 750 to about 2500.

8. The lubricating oil composition of claim 6, wherein the molar ratio of the polyalkylene glycol to the dicarboxylic acid or dicarboxylic anhydride in the catalyzed reaction is about 0.1:1.0 to about 1.0:0.1.

9. The lubricating oil composition of claim 1, wherein the lubricating oil composition is substantially free of an aqueous layer after about 24 hours when tested according to ASTM D7563-10.

10. The lubricating oil composition of claim 1, wherein the number average molecular weight of the linear or branched R group is about 1.5 to about 15 times higher than the number average molecular weight of the polyalkylene oxide group.