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(54) Title: LOW TEMPERATURE PERFORMANCE LUBRICATING OIL DETERGENTS AND METHOD OF MAKING THE SAME

(57) Abstract: A carboxylate detergent prepared by the process comprising (a) alkylating a hydroxyaromatic compound with at least one alpha olefin oligomer, derived from C₈ to C₂₀ alpha olefins, to thereby produce an alkylhydroxyaromatic compound, and wherein at least 90 % of the molecules in the alkylhydroxyaromatic compound have the alkyl group attached at the 4-position or higher from the terminus of the longest chain of the alkyl group, and and further wherein the alkyl group comprises at least one hydrocarbon tail of at least 7 carbons; (b) neutralizing the resulting alkylated hydroxyaromatic compound with an alkali metal base; (c) carbonating the alkali metal salt from step (b) with carbon dioxide; (d) acidifying the salt produced in step (c); and (e) overbasing the resulting alkylated hydroxyaromatic carboxylic acid.



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