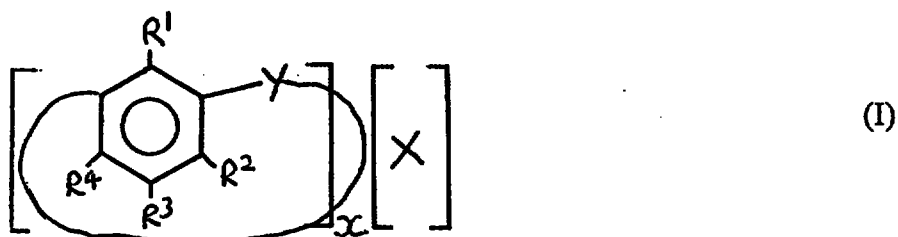


ABSTRACT
ASH-FREE DETERGENTS, THEIR PREPARATION, AND USE IN
LUBRICATING OIL COMPOSITIONS

A compound comprised of a moiety derived from an organic nitrogen-containing base and a calixarene moiety in which the hydroxyl substituent (or substituents) is (are) substituted by oligoether chains. Typically, the compounds are complexes of the formula (I):-



wherein Y is a divalent bridging group;
 R^3 is hydrogen, hydrocarbyl or a hetero-substituted hydrocarbyl group;
 either (1) R^1 is OR^5 and R^2 and R^4 are independently either hydrogen, hydrocarbyl or hetero-substituted hydrocarbyl, or (2) R^1 is either hydrogen, hydrocarbyl or hetero-substituted hydrocarbyl, and either both R^2 and R^4 are OR^5 or one of R^2 and R^4 is OR^5 and the other is $-OH$, R^5 being $-(Z)_nR^6$ in which Z is at least one alkylene oxide group, R^6 is hydrocarbyl or hetero-substituted hydrocarbyl and n is an integer in the range from 1 to 10; x is an integer in the range from 3 to 12; and X is a moiety derived from an organic nitrogen-containing base.