

NOVEL ALKYLAROMATIC LUBRICANT FLUIDS

ABSTRACT

Aromatic compounds are alkylated with $C_{20}-C_{1300}$ olefinic oligomers by contacting the oligomers and aromatic compounds with an acidic catalyst to produce novel alkylated aromatic hydrocarbon compositions useful as lubricant basestock and additives. The olefinic oligomers used as alkylating agents are prepared from 1-alkene oligomerization in contact with a reduced chromium oxide catalyst on silica support. In one embodiment, the aromatic compounds are alkylated with a mono-olefinic HVI-PAO dimer which is prepared as a product or by-product from 1-alkene oligomerization using reduced chromium oxide on solid support. The alkylated aromatic hydrocarbons retain the unique features of the alkylating olefinic oligomer and exhibit high viscosity index and low pour point. The novel alkylaromatic compositions show improved thermal stability; also, the compositions are useful as lubricant additives for improved antiwear properties, antioxidant and other properties.

FIGURE 1 IS SUGGESTED FOR PUBLICATION.