ABSTRACT

SURFACE ACTIVE AGENTS DERIVED FROM BIODIESEL-BASED ALKYLATED AROMATIC COMPOUNDS

A surface active agent comprising an arylated methyl ester of a fatty acid, or mixture of fatty acids, derived from biodiesel or a triglyceride source is disclosed. The fatty acid mixture is condensed to methyl esters and alkylated with aromatic substituents under Friedel-Crafts conditions. The alkylated methyl esters may be alkoxylated using a catalyst derived from fatty acids, alkaline earth salts, and strong acids. The resulting nonionic surfactant may also be sulfonated to produce one class of anionic surfactants. The alkylated methyl esters may also be directly sulfonated to produce another class of anionic surfactants.

No Figure

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