

Title (en)

THE USE OF QUATERNIZED POLYETHERAMINES AS ADDITIVES IN FUELS AND LUBRICANTS

Title (de)

VERWENDUNG VON QUATERNISIERTEN POLYETHERAMINEN ALS ADDITIVE IN KRAFT- UND SCHMIERSTOFFEN

Title (fr)

UTILISATION DE POLYÉTHÉRAMINES QUATERNAIRES EN TANT QU'ADDITIFS DANS DES CARBURANTS ET DES LUBRIFIANTS

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Abstract (en)

[origin: EP2589647A1] Fuel- or lubricant composition comprises at least one reaction product comprising a quaternized nitrogen compound, which is obtainable by reacting (a) a polyether-substituted amine compound containing at least one tertiary and quaternizable amino group, with (b) a quaternizing agent, which converts the tertiary amino group into a quaternary ammonium group, in a major proportion of a fuel or a lubricant. Independent claims are also included for: (1) quaternized nitrogen-containing compound; (2) preparing (II), comprising (a) alkoxyating amino alkanol compounds of formula ((R1)(R2)N-A-OH) (IV) with epoxide compounds of formula (V), to obtain alkoxyated amine of formula (((R1)(R2)N-A-O-(CH(R13)-CH(R14)-O) n-H) (V), and (b) quaternizing (V) with hydrocarbon compounds of formula (R7-X) (VI), or alkylene oxide of formula (VII) with an acid of formula (HX) (XII) to obtain a reaction product comprising at least one compound (II); (3) preparing (III), comprising (i) alkoxyating alcohol compounds of formula (R6-OH) (VIII) with (V) to obtain polyether of formula (R6-O-(CH(R3)-CH(R4)-O) n - 1-CH(R3)-CH(R4)OH) (IX), (ii) aminating (IX) with amine compounds of formula (NH(R1)(R2)) (X), to obtain an amine compounds of formula (R6-O-(CH(R3)-CH(R4)-O) n - 1-CH(R3)-CH(R4)-N(R1)(R2)) (XI), where (XI) is optionally alkylated, when R1 and R2 are H, and (c) quaternizing (XI) with (VI) or (VII) with (XII) to obtain a reaction product comprising at least one compound (III); and (4) an additive concentrate comprising at least one quaternized nitrogen compound prepared by the above method, with other diesel or gasoline fuel additives. R7 : alkyl or aryl; and R8 (in claim 9, formula VII) : H, alkyl, aryl, or -CH 2CH(OH)R8. [Image].

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