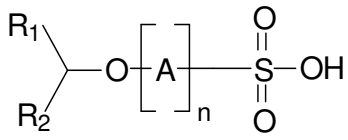
documents mention the alkoxylation of various compounds, including alcohols, by basic catalysis and/or by DMC catalysis.

[0010] Thus, a secondary alcohol sulfate is sought, said alcohol being short-chained and alkoxylated, the alkoxylation of which is performed via a simple process that allows low-cost industrial and commercial development. It would also be advantageous to develop a process for preparing these sulfates using alkoxylated secondary alcohols, the starting compound of which is a biobased and biodegradable reagent.

[0011] One object of the present disclosure is to propose a solution for resolving the problems mentioned above.

SUMMARY

[0012] In an aspect, there is provided a compound of formula (I) below:



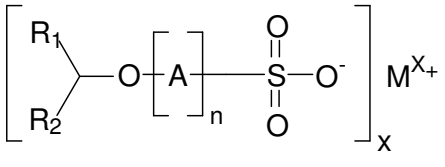
(I),

in which:

- the groups R_1 and R_2, which may be identical or different, represent, independently of each other, a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group, comprising from 1 to 6 carbon atoms, it being understood that the sum of the carbon atoms of the groups R_1 and R_2 ranges from 2 to 7, R_1 and R_2 possibly forming, together with the carbon atom that bears them, a 6-, 7- or 8-membered ring,
- A represents a sequence of one or more units chosen from ethylene oxide, propylene oxide and butylene oxide units, and mixtures thereof, and
- n is an integer between, limits inclusive, 1 and 100, preferably between 2 and 100, more preferably between 3 and 100, more particularly between 5 and 100 and very preferably between 10 and 100.

[0013] Examples of the present disclosure are also the salts of the compounds of formula (I) above with one or more cationic groups bearing at least one cation chosen from an ammonium cation, a metal cation, a nitrogen cation, a boron cation and a phosphorus cation.

[0014] In another aspect, there is provided a salt of the compound as disclosed herein described by formula (II) below:



(II)

in which:

- M^{x+} represents a cationic group bearing at least one cation chosen from an ammonium cation, a metal cation, a nitrogen cation, a boron cation and a phosphorus cation,
- x is an integer ranging from 1 to 7, and
- R_1, R_2, A and n are as defined previously.

[0015] An example of the present disclosure is also the use of at least one compound of formula (I) and of at least one compound of formula (II). In the rest of the present description, and unless otherwise mentioned, the term "compound of formula (I)" denotes at least one compound of formula (I) or at least one salt thereof of formula (II) or a mixture of at least one compound of formula (I) with at least one salt thereof of formula (II).

[0015a] In another aspect, there is provided a use of the compound as disclosed herein, as surfactant, low-foaming surfactant, wetting agent, foaming agent, hydrotrope, detergent, solvent, reactive solvent, coalescer, compatibilizer, emulsifying agent, dispersant, chemical intermediary, corrosion inhibitor, demulcent, plasticizer, sequestrant, mineral deposition inhibitor, ionic liquid, stabilizer, lubricant, bitumen additive, deinking additive, oil gellant, ore flotation collector, processing aid in the manufacture of plastics, antistatic agent, fertilizer coating additive, for plant protection, for treating textiles and for enhanced oil recovery, for the production of electrodes and electrolytes for batteries.

[0016] Another example of the disclosure is the use of the compound of formula (I) according to the disclosure, as surfactant, low-foaming surfactant, wetting agent, foaming agent, hydrotrope, detergent, solvent, reactive solvent, coalescer, compatibilizer, emulsifying agent, dispersant, chemical intermediary, corrosion inhibitor, demulcent, plasticizer, sequestrant, mineral deposition inhibitor, ionic liquid, stabilizer, lubricant, bitumen additive, deinking additive, oil gellant, ore flotation collector, processing aid in the manufacture of plastics, antistatic agent, fertilizer coating additive, for plant protection, for treating textiles and for enhanced oil recovery, for the production of electrodes and electrolytes for batteries.

[0016a] In yet another aspect, there is provided a composition comprising at least one compound of formula (I) and/or a salt thereof, alone or as a mixture, as disclosed herein, with one or more aqueous, organic or aqueous-organic solvents, and optionally one or more additives and fillers.

[0017] Other advantages and features of the disclosure will emerge more clearly apparent on examining the detailed description. It is specified that the expression "from … to …" used in the present description should be understood as including each of the limits mentioned.

[0018] For the purposes of the present invention, the term "ethylene oxide unit" refers to the unit derived from ethylene oxide after opening of the oxirane ring. Similarly, the term "propylene oxide unit" refers to the unit derived from propylene oxide after opening of the oxirane ring. Similarly also, the term "butylene oxide unit" refers to the unit derived from butylene oxide after opening of the oxirane ring.