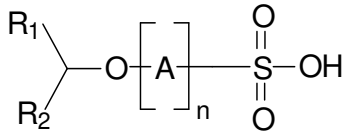
documents mention the alkoxylation of various compounds, including alcohols, by basic catalysis and/or by DMC catalysis.

[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] There is provided a compound of formula (I) below:

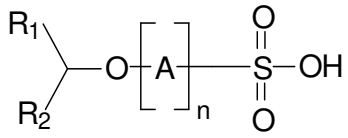


(I),

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.

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



(I),

in which:

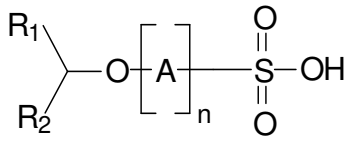
- the radical formed by R_1, R_2 and the carbon atom to which they are attached is chosen from the 2-octyl radical and the 4-methyl-2-pentyl radical,

- 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.

CLAIMS

1. A compound of formula (I) below:



(I),

in which:

- the radical formed by R_1, R_2 and the carbon atom to which they are attached is chosen from the 2-octyl radical and the 4-methyl-2-pentyl radical,
- 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.

2. The compound as claimed in claim 1, in the form of a salt with an alkali metal cation, and alkaline-earth metal cation, a metal cation or with an organic compound, including organic bases.

3. The compound as claimed in claim 1 or claim 2, in which the groups R_1 and R_2, which may be identical or different, are chosen, independently of each other, from methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, tert-butyl, pentyl and hexyl radicals.

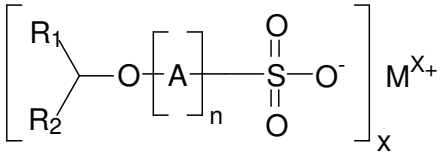
4. The compound as claimed in any one of claims 1 to 3, in which the radical formed by R_1, R_2 and the carbon atom to which they are attached is the 2-octyl radical.

5. The compound as claimed in any one of claims 1 to 4, in which n is between, limits inclusive, 1 and 75, preferably between 2 and 75, more preferably between 3 and 75, more particularly between 5 and 75 and very preferably between 10 and 75.

6. The compound as claimed in any one of claims 1 to 5, in which n is between, limits inclusive, 1 and 50, preferably between 2 and 50, more preferably between 3 and 50, more particularly between 5 and 50 and very preferably between 10 and 50.

7. The compound as claimed in any one of claims 1 to 5, in which the group formed by R_1, R_2 and the carbon atom to which R_1 and R_2 are attached represents the 2-octyl radical, n ranges from 3 to 15, and A represents a sequence of one or more units chosen from ethylene oxide, propylene oxide and butylene oxide units, and mixtures thereof.

8. A salt of the compound as claimed in any one of claims 1 to 7, corresponding to 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 in any one of claims 1 to 7.

9. The use of a compound as claimed in any one of the preceding claims, 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.

10. A composition comprising at least one compound of formula (I) and/or a salt thereof, alone or as a mixture, as defined in any one of claims 1 to 8, with one or more

aqueous, organic or aqueous-organic solvents, and optionally one or more additives and fillers.