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In the reaction mixture, the catalyst concentration is preferably > 0 to 1000 wppm (mass ppm), preferably > 0 to 500 wppm, particularly preferably 0.1 to 100 wppm and very particularly preferably 1 to 50 wppm. Here, this concentration is based on the total mass of the polyetherpolyols formed; the reaction temperature is about 60 to 250°C, preferably from 90 to 160°C and particularly preferably about 100 to 130°C. The pressure at which the alkoxylation takes place is preferably 0.02 bar to 100 bar, preferably 0.05 to 20 bar absolute.

Alcohols R^1OH which can be used in the process according to the invention are in particular monofunctional alcohols having 4 to 22 carbon atoms, preferably 4 to 18 carbon atoms, such as butanol, myristyl alcohol and stearyl alcohol.

Within the context of the invention, epoxide monomers which can be used are, besides ethylene oxide, propylene oxide, butylene oxide, styrene oxide, 1,2-dodecene oxide and cyclohexene oxide, all known further mono- and polyfunctional epoxide compounds including the glycidyl ethers and esters, individually or in a mixture and either randomly or else in a block-like order.

To start the reaction, it may be advantageous if firstly a reaction mixture which contains the DMC catalyst, if desired slurried in a suspending agent, is initially introduced into the reactor and at least one alkylene oxide is metered into this. The molar ratio of alkylene oxide to reactive groups, in particular OH groups, in the starting mixture is preferably 0.1 to 5:1, preferably 0.2 to 2:1. It may be advantageous if, prior to the addition of the alkylene oxide, any substances which inhibit the reaction that are present are removed from the reaction mixture, e.g. by distillation. Suspending agents which can be used are either a polyether or inert solvents or

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Alcohols R^1OH which can be used in the process according to the invention are in particular monofunctional alcohols having 3 to 22 carbon atoms, preferably 4 to 18 carbon atoms, such as butanol, myristyl alcohol and stearyl alcohol.

Within the context of the invention, epoxide monomers which can be used are, besides ethylene oxide, propylene oxide, butylene oxide, styrene oxide, 1,2-dodecene oxide and cyclohexene oxide, all known further mono-and polyfunctional epoxide compounds including the glycidyl ethers and esters, individually or in a mixture and either randomly or else in a block-like order.

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Claims:

1. The preparation of polyether alcohols for cosmetic and/or dematological use, using a DMC catalyst wherein the polyether alcohols obtained in this way are not further treated.

2. The preparation as claimed in claim 1, characterized in that the DMC catalyst is used in a concentration of less than 1000 wppm.

3. The preparation as claimed in claims 1 or claim 2, characterized in that the polyether alcohols are polypropylene glycol alkyl ethers.

4. The preparation as claimed in any one of the preceding claims, characterized in that one or more polyether alcohols of the formula (I) are present,

$$R^1\text{-}[O\text{-}(A)_n\text{-}(B)_m\text{-}H]_x$$

(I)

R^1 being a linear or branched alkyl radical having 3 to 22 carbon atoms,

A independently of B being an identical or different ethyleneoxy, propyleneoxy, butyleneoxy, styreneoxy, cyclohexyloxy unit or a unit originating from a glycidyl compound as the result of epoxide ring opening,

B independently of A being an identical or different ethyleneoxy, propyleneoxy, butyleneoxy, styreneoxy, cyclohexyloxy unit or a unit originating from a glycidyl compound as a result of epoxide ring opening

m being equal to 0 to 20,

n being equal to 1 to 40,

x being an integer from 1 to 6,

and the monomer units A and B can be strung together in their order arbitrarily either blockwise or randomly.

5. The preparation as claimed in any one of the preceding claims, characterized in that the polyether alcohols are PPG-3 myristyl ether, PPG-11 stearyl ether, PPG-14 butyl ether or PPG-15 stearyl ether.

6. A cosmetic and/or dematological preparation using the preparation as claimed in any one of the preceding claims.

7. A cosmetic and/or dermatological preparation as claimed in claim 6, characterized in that an additional component is present in the cosmetic selected from the group of emollients, emulsifiers and surfactants, thickeners, viscosity regulators, stabilizers, UV photoprotective filters, antioxidants and vitamins, hydrotropes or polyols, solids and fillers, film formers, pearlescence additives, deodorant and antiperspirant active ingredients, esterase inhibitors, insect repellents, self-tanning agents, preservatives, conditioners, perfumes, dyes, biogenic active ingredients, care additives, superfatting agents and/or solvents.

8. A cosmetic and/or dermatological preparation as claimed in claim 6 or claim 7, characterized in that the cosmetic and/or dermatological preparation is a thick-liquid to semisolid and ranging to cream-solid.

9. A cosmetic and/or dematological preparation as claimed in any one of claims 6-8, characterized in that the preparation contains perfume and/or fragrances.

10. A cosmetic and/or dematological preparation as claimed in any one of claims 6-9, wherein the cosmetic and/or dematological preparation is an antiperspirant.

Claims:

1. The preparation of polyether alcohols for cosmetic and/or dematological use, using a DMC catalyst comprising the steps of:
providing a reactor vessel;
metering at least one alkylene oxide into a starting mixture including:
i) a DMC catalyst in a concentration of less than 1000 wppm (based on the polyether alcohols to be formed); and
ii) an alcohol;
into the reactor vessel to form a reaction mixture;
monitoring the pressure within the reactor vessel; and either:
a) metering more of at least one alkylene oxide into a reaction mixture; or
b) metering more of at least one alkylene oxide together with starting compound into the reaction mixture;
to form polyether alcohols;
wherein the polyether alcohols obtained in this way are not further treated.

2. The preparation as claimed in claim 1, characterized in that the catalyst concentration is either:
a) 0.1 to 100 wppm; or
b) 1 to 50 wppm.

3. The preparation as claimed in claims 1 or claim 2, characterized in that the polyether alcohols are polypropylene glycol alkyl ethers.

4. The preparation as claimed in any one of the preceding claims, characterized in that one or more polyether alcohols of the formula (I) are present,

$$R^1-[O-(A)_n-(B)_m-H]_x$$

(I)

R^1 being a linear or branched alkyl radical having 3 to 22 carbon atoms,

A independently of B being an identical or different ethyleneoxy, propyleneoxy, butyleneoxy, styreneoxy, cyclohexyloxy unit or a unit originating from a glycidyl compound as the result of epoxide ring opening,

B independently of A being an identical or different ethyleneoxy, propyleneoxy, butyleneoxy, styreneoxy, cyclohexyloxy unit or a unit originating from a glycidyl compound as a result of epoxide ring opening

m being equal to 0 to 20,

n being equal to 1 to 40,

x being an integer from 1 to 6,

and the monomer units A and B can be strung together in their order arbitrarily either blockwise or randomly.

5. The preparation as claimed in any one of the preceding claims, characterized in that the polyether alcohols are PPG-3 myristyl ether, PPG-11 stearyl ether, PPG-14 butyl ether or PPG-15 stearyl ether.

6. A cosmetic and/or dematological preparation incorporating the polyether alcohols formed by the process as claimed in any one of the preceding claims.

7. A cosmetic and/or dermatological preparation as claimed in claim 6, characterized in that an additional component is present in the cosmetic selected from the group of emollients, emulsifiers and surfactants, thickeners, viscosity regulators, stabilizers, UV photoprotective filters, antioxidants and vitamins, hydrotropes or polyols, solids and fillers, film formers, pearlescence additives, deodorant and antiperspirant active ingredients, esterase inhibitors, insect repellents, self-tanning agents, preservatives, conditioners, perfumes, dyes, biogenic active ingredients, care additives, superfatting agents and/or solvents.

8. A cosmetic and/or dermatological preparation as claimed in claim 6 or claim 7, characterized in that the cosmetic and/or dermatological preparation is a thick-liquid to semisolid and ranging to cream-solid.

9. A cosmetic and/or dematological preparation as claimed in any one of claims 6-8, characterized in that the preparation contains perfume and/or fragrances.

10. A cosmetic and/or dematological preparation as claimed in any one of claims 6-9, wherein the cosmetic and/or dematological preparation is an antiperspirant.