Claims

1. Process for preparing a polyester microcapsule slurry, said process comprising the steps of:

(i) Dispersing an oil phase O1 comprising a hydrophobic material H1, into a continuous phase comprising a polyol to obtain a two-phases dispersion E1, wherein the oil phase O1 and/or the continuous phase comprise a stabilizer S1,

(ii) Dispersing the two-phases dispersion E1 in an oil phase O2 comprising a hydrophobic material H2 and a stabilizer S2 to obtain a multiple dispersion E2;

(iii) Adding at least one carboxylic acid derivative A3 into the multiple dispersion E2; and

(iv) applying conditions sufficient to induce interfacial polymerization and form polyester microcapsules in the form of a slurry,

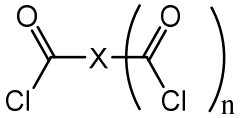
wherein the carboxylic acid derivative A3 is chosen in the group consisting of acid, amide, ester, anhydride and acid chloride and mixtures thereof.

2. The process according to claim 1, wherein the hydrophobic material H1 comprises a perfume oil.

3. The process according to claim 1 or 2, wherein the process comprises a step v) consisting of adding a hydrophobic material H3, preferably a perfume oil, in the slurry.

4. The process according to claim 3, wherein the carboxylic acid derivative A3 is an acyl chloride.

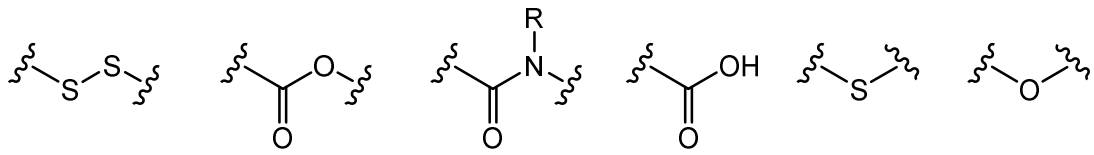
5. The process according to claim 4, wherein the acyl chloride has the following formula (I)



(I)

wherein n is an integer varying between 1 and 8, preferably between 1 and 6, more preferably between 1 and 4, and

wherein X is an (n+1)-valent C_2 to C_{45} hydrocarbon group optionally comprising at least one group selected from (i) to (vi),



(i) (ii) (iii) (iv) (v) (vi)

wherein R is a hydrogen atom or a methyl or ethyl group, preferably a hydrogen atom.

6. The process according to claim 5, wherein the acyl chloride is chosen from the group consisting of benzene-1,3,5-tricarbonyl trichloride (trimesoyl trichloride), benzene-1,2,4-tricarbonyl trichloride, benzene-1,2,4,5-tetracarbonyl tetrachloride, cyclohexane-1,3,5-tricarbonyl trichloride, isophthalyol dichloride, diglycolyl dichloride, terephthaloyl chloride, fumaryl dichloride, adipoyl dichloride, succinic acid dichloride, propane-1,2,3-tricarbonyl trichloride, cyclohexane-1,2,4,5-tetracarbonyl tetrachloride, 2,2'-disulfanediyldisuccinyl dichloride, 2-(2-chloro-2-oxo-ethyl)sulfanylbutanedioyl dichloride, (4-chloro-4-oxobutanoyl)-L-glutamoyl dichloride, (S)-4-((1,5-dichloro-1,5-dioxopentan-2-yl)amino)-4-oxobutanoic acid, 2,2-bis[(4-chloro-4-oxo-butanoyl)oxymethyl]butyl 4-chloro-4-oxo-butanoate, [2-[2,2-bis[(4-chloro-4-oxo-butanoyl)oxymethyl]butoxymethyl]-2-[(4-chloro-4-oxo-butanoyl)oxymethyl]butyl] 4-chloro-4-oxo-butanoate, 2,2-bis[(2-chlorocarbonylbenzoyl)oxymethyl]butyl 2-chlorocarbonyl-benzoate, [2-[2,2-bis[(2-chlorocarbonylbenzoyl)oxymethyl]butoxymethyl]-2-[(2-chlorocarbonylbenzoyl)oxymethyl]butyl] 2-chlorocarbonylbenzoate, 4-(2,4,5-trichlorocarbonylbenzoyl)oxybutyl 2,4,5-trichlorocarbonyl-benzoate, propane-1,2,3-triyl tris(4-chloro-4-oxobutanoate), propane-1,2-diyl bis(4-chloro-4-oxobutanoate) and mixtures thereof.

7. The process according to any one of the preceding claims, wherein at least one carboxylic acid derivative A1 is added into E1 after step i) and/or at least one carboxylic acid derivative A2 is added into the oil phase O1 and wherein the carboxylic acid derivative A1 and/or the carboxylic acid derivative A2 is preferably chosen in the group consisting of acid, amide, ester, anhydride and acid chloride and mixtures thereof, more preferably is an acid chloride, even more preferably is chosen in the group consisting of benzene-1,3,5-tricarbonyl trichloride (trimesoyl trichloride), benzene-1,2,4-tricarbonyl trichloride, benzene-1,2,4,5-tetracarbonyl tetrachloride, cyclohexane-1,3,5-tricarbonyl trichloride, isophthalyol dichloride, diglycolyl dichloride, terephthaloyl chloride, fumaryl dichloride, adipoyl dichloride, succinic dichloride, propane-1,2,3-tricarbonyl trichloride, cyclohexane-1,2,4,5-tetracarbonyl tetrachloride, 2,2'-disulfanediyldisuccinyl dichloride, 2-(2-chloro-2-oxo-ethyl)sulfanylbutanedioyl dichloride, (4-chloro-4-oxobutanoyl)-L-glutamoyl dichloride, (S)-4-((1,5-dichloro-1,5-dioxopentan-2-yl)amino)-4-oxobutanoic acid, 2,2-bis[(4-chloro-4-oxo-butanoyl)oxymethyl]butyl 4-chloro-4-oxo-butanoate, [2-[2,2-bis[(4-chloro-4-oxo-butanoyl)oxymethyl]butoxymethyl]-2-[(4-chloro-4-oxo-butanoyl)oxymethyl]butyl] 4-chloro-4-oxo-butanoate, 2,2-bis[(2-chlorocarbonylbenzoyl)oxymethyl]butyl 2-chlorocarbonyl-benzoate, [2-[2,2-bis[(2-chlorocarbonylbenzoyl)oxymethyl]butoxymethyl]-2-[(2-chlorocarbonylbenzoyl)oxymethyl]butyl] 2-chlorocarbonylbenzoate, 4-(2,4,5-trichlorocarbonylbenzoyl)oxybutyl 2,4,5-trichlorocarbonyl-benzoate, propane-1,2,3-triyl tris(4-chloro-4-oxobutanoate), propane-1,2-diyl bis(4-chloro-4-oxobutanoate) and mixtures thereof.

8. The process according to any one of the preceding claims, wherein the continuous phase does not comprise water.

9. The process according to any one of the preceding claims, wherein the polyol is chosen in the group consisting of glycerol,1,4-butanediol, ethylene glycol, 1,2-propylene glycol, 1,3-propylene glycol, triethanolamine, di(trimethylolpropane), ethylene glycol, glycerol, 1,4-butanediol, 1,2-hexanediol, 1,6-hexanediol, 2-ethyl-2-(hydroxymethyl)propane-1,3-diol (trimethylolpropane, TMP), 2,2-bis(hydroxymethyl)propane-1,3-diol (pentaerythritol), 2-amino-2-ethylpropane-1,3-diol, 2-amino-2-(hydroxymethyl)propane-1,3-diol, 2,2’-azanediylbis(ethan-1-ol), 2-aminopropane-1,3-diol, 2-amino-2-methylpropane-1,3-diol, polyphenols and mixtures thereof.

10. The process according to any one of the preceding claims, wherein the hydrophobic material H2 is chosen in the group consisting of triglycerides, isopropyl myristate, and mixtures thereof.

11. The process according to any one of the preceding claims, wherein the stabilizers S1 and/or S2 are is chosen in the group consisting secondary alcohol ethoxylate, polyethylene glycol sorbitan monooleate, hydrophobized silica particles; silk protein; sorbitan stearate, hydroxyapatite particles, polyglycerol polyricinoleate, sorbitane trioleate, polyglyceryl-3 diisostearate, cellulose derivatives such as hydroxypropylcellulose and mixtures thereof.

12. A polyester microcapsule slurry obtainable by the process as described in any one of the preceding claims, wherein it comprises at least

- a core comprising an oil phase, wherein the oil phase comprises a hydrophobic material H1, and
- a carrier comprising the reaction product between at least one carboxylic acid derivative A3 and a polyol,

wherein the core is entrapped in the carrier, and wherein the core comprises a two-phases dispersion made of the polyol and the hydrophobic material H1.

13. A consumer product comprising:

- a personal care active base, and
- microcapsules as defined in claim 12,

wherein the consumer product is in the form of a personal care composition.

14. A consumer product comprising:

- a home care or a fabric care active base, and
- microcapsules as defined in claim 12,

wherein the consumer product is in the form of a home care or a fabric care composition.