CLAIMS

1. A process for the preparation of a polyurea-based core-shell microcapsule slurry comprising the steps of:

1) admixing a hydrophobic active ingredient with at least one polyisocyanate having at least three isocyanate functional groups to form an oil phase, provided that the oil phase is free from diisocyanate;
2) dissolving an ionic or non-ionic emulsifier in water to form a water phase, wherein the ionic emulsifier is chosen in the group consisting of gum Arabic, carboxymethyl cellulose, soy protein, sodium caseinate, gelatin, bovine serum albumin, sugar beet pectin, hydrolyzed soy protein, hydrolyzed sericin, Pseudo collagen, Biopolymer SA-N, Pentacare-NA PF, and mixtures thereof and wherein the non-ionic emulsifier is chosen in the group consisting of polyvinyl alcohol, modified polyvinyl alcohol, modified starch, modified cellulose, polysaccharides and mixtures thereof;
3) adding the oil phase to the water phase to form an oil-in-water dispersion;
4) applying conditions sufficient to induce interfacial polymerisation and form microcapsules in form of a slurry;

said process being characterized in that:

- the at least one polyisocyanate having at least three isocyanate functional groups is present in an amount comprised between 1 and 15 wt% of the oil phase,
- no amine or polyamine is added at any stage of the process, and
- it does not comprise a further step of adding a cationic polymer to form an outer coating to the microcapsule.

2. The process according to claim 1, further comprising the step of drying the microcapsule slurry to obtain dried microcapsules.

3. The process according to claim 1 or 2, wherein no water-soluble reactant being chosen in the group consisting of polyols, thiols, ureas, urethanes and mixtures thereof is added at any stage of the process.

4. The process according to any one of the preceding claims, characterized in that the at least one polyisocyanate having at least three isocyanate functional groups is present in an amount comprised between 2 and 8 wt% of the oil phase.

5. The process according to any one of the preceding claims, characterised in that the at least one polyisocyanate having at least three isocyanate functional groups is present in an amount comprised between 2 and 6 wt% of the oil phase.

6. The process according to any one of the preceding claims, characterized in that the at least one polyisocyanate having at least three isocyanate functional groups is a mixture of at least one aliphatic polyisocyanate and at least one aromatic polyisocyanate, the aliphatic polyisocyanate and the aromatic polyisocyanate being in a respective molar ratio ranging from 80:20 to 10:90.

7. The process according to any one of claims 1 to 5, characterized in that the at least one polyisocyanate having at least three isocyanate functional groups is an aromatic polyisocyanate.

8. The process according to any one of the preceding claims, characterized in that oil phase consists of the hydrophobic active ingredient with the at least one polyisocyanate having at least three isocyanate functional groups.

9. The process according to any one of the preceding claims, characterized in that the hydrophobic active ingredient is chosen in the group consisting of a perfume, flavor, nutraceuticals, cosmetics, insect control agents, biocide actives and mixtures thereof.

10. A polyurea-based microcapsule slurry obtainable by a process as defined in any one of claims 1 and 3 to 9.

11. A polyurea-based microcapsule powder obtained by drying the microcapsule slurry as defined in claim 10.

12. The microcapsule slurry according to claim 10 comprising microcapsules having a core-shell morphology and comprising

-an oil-based core comprising a hydrophobic active ingredient such as perfume or flavour oil;

-a shell consisting of polymerised polyisocyanate formed from at least one polyisocyanate comprising at least three isocyanate functional groups in the absence of a polyamine or an amine, and an emulsifier as defined in claim 1 and wherein the microcapsules do not comprise a cationic coating.

13. The microcapsule powder as defined in claim 11 comprising microcapsules having a core-shell morphology and comprising

-an oil-based core comprising a hydrophobic active ingredient;

-a shell consisting of polymerised polyisocyanate formed from at least on polyisocyanate comprising at least three isocyanate functional groups in the absence of a polyamine or an amine and an emulsifier as defined in claim 1, wherein the microcapsules do not comprise a cationic coating.

14. A perfuming composition comprising

(i) a microcapsule slurry as defined in claims 10 or 12 or a microcapsule powder as defined in claims 11 or 13, wherein the hydrophobic active ingredient comprises a perfume;

(ii) at least one ingredient selected from the group consisting of a perfumery carrier and a perfumery co-ingredient; and

(iii) optionally at least one perfumery adjuvant.

15. A liquid perfumed consumer product, preferably in the form of a laundry care product, a home care product, a body care product, a skin care product, an air care product, or a hygiene product, said consumer product comprising:

a) from 2 to 65% by weight, relative to the total weight of the consumer product, of at least one surfactant;
b) a water or a water-miscible hydrophilic organic solvent; and
c) a microcapsule slurry as defined in any one of claims 10 or 12.

16. A powder perfumed consumer product, preferably in the form of a laundry care product, a home care product, a body care product, a skin care product, an air care product, or a hygiene product, said consumer product comprising
(a) from 2 to 65% by weight, relative to the total weight of the consumer product, of at least one surfactant; and
(b) a microcapsule powder as defined in claim 11 or 13 or a perfuming composition as defined in claim 14.