Title (en)

NANO-SIZED MATERIALS IN HYGIENE PRODUCTS

Title (de)

NANOSKALIGE MATERIALIEN IN HYGIENE-PRODUKTEN

Title (fr)

SUBSTANCES DE TAILLE NANOM TRIQUE DANS DES PRODUITS D'HYGI NE

Publication

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Application

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Priority

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- EP 0114557 W 20011212

Abstract (en)

[origin: WO0249559A2] The invention relates to the use of body-compatible substances for the production of hygiene products. The substances are present in the form of nanoparticles which have been chemically or physically modified on the surface thereof. The body-compatible substances are selected from oxides, oxidhydrates, hydroxides, halogenides, phosphates, sulfides, nitrides and carbides of Al, SI, of alkaline and alkaline-earth metals in addition to subgroup elements including mixed salts of said groups such as hydroxides/halogenides, halogenides/phosphates or hydroxides/halogenides/ phosphates. The chemical or physical modification of the particle surface is carried out with the aid of organic compounds such as; (a) carboxyl acids (mono, di and polycarboxylic acids) or derivatives thereof; (b) amino acids, particularly naturally occurring amino acids; (c) hydroxy-carboxyl acids and sugar acids such as glucaric acid, gluconic acid, glucuronic acid; (d) polyglycolic acids of general formula HOOC-CH2-O-(CH2-CH2-O)n-CH2-COOH, whereby n represents 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12; (e) ethercarboxylic acids of general formula R-(O-CH2-CH2)n-O-CH2-COOH, whereby n represents 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12, whereby R = C6-, C8-, C10- C12- C14- C16- C18- alkyl, alkenyl or alkynyl; (f) alkylhalogenides or (g) silanes of the type (OR)4-nSIR'n, whereby R = methyl, ethyl, propyl, i-propyl, butyl, t-butyl and R' represents an organic, particularly an aliphatic radical with functional groups such as OH, -COOH, ester, amine or epoxy, whereby preferably R' = C6-,C8-, C10- C12- C14- C16- C18-alkyl, alkenyl or alkinyl, aminopropyl, N-aminoethyl-3-aminopropyl, n- or I-propyl-N,N,N, -dimethyloctadecyl-ammonium chloride, n- or i-propyl-N,N,N-trimethyl ammonium chloride, n- or I-propyl succinic acid anhydride.

IPC 1-7

A61L 15/18; A61L 15/46

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