

Title (en)  
SALT-FREE AQUEOUS DISPERSIONS OF WATER SOLUBLE (CO)POLYMERS BASED ON CATIONIC MONOMERS, METHOD FOR MAKING SAME AND USES THEREOF

Title (de)  
WÄSSRIGE SALZDISPERSIONEN VON WASSERLÖSLICHEN (CO)POLYMEREN AUF BASIS VAN KATIONISCHEN MONOMEREN, IHR HERSTELLUNGSVERFAHREN UND IHRE VERWENDUNG

Title (fr)  
DISPERSIONS AQUEUSES SANS SEL DE (CO)POLYMERES HYDROSOLUBLES A BASE DE MONOMERES CATIONIQUES, LEUR PROCEDE DE FABRICATION ET LEURS APPLICATIONS

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Application  
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Abstract (en)  
[origin: FR2804122A1] An aqueous dispersion, comprises a mono- or di-quaternary amino acrylate-based copolymer. An aqueous dispersion, comprises a hydrosoluble copolymer comprising: (a) a monomer(s) of formula (I), quaternized on one or both of the N atoms (0.5-99.5 mole parts - mol.pts.); (b) a hydrosoluble monomer(s) from those of formulae (II), (III) and (IV) ((IV) is the same as formula (I), but R<3> = CH<sub>2</sub>, C<sub>2</sub>H<sub>5</sub> or C<sub>3</sub>H<sub>7</sub>, and X = Cl or CH<sub>3</sub>OSO<sub>3</sub>) and unsaturated carboxylic, sulfuric and sulfonic acids and their derivatives (99.5-0.5 mol.pts.); (c) hydrophobic monomer(s) ( <= 30 mol.pts.); (d) crosslinking monomer(s) ( <= 10 mol.pts.); and (e) amphiphilic monomer(s) ( <= 30 mol.pts.): R<1> = H or CH<sub>3</sub>; R<2> = CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub> or C<sub>4</sub>H<sub>9</sub>; And either compound (I) is singly quaternized and: R<3> = -CH<sub>2</sub>(C<sub>6</sub>H<sub>5</sub>); and X<-> = Cl<-> or CH<sub>3</sub>OSO<sub>3</sub><->; Or: R<3> = (CH<sub>2</sub>)<sub>p</sub>CH<sub>3</sub>; p = 3-11; and X<-> = Br<-> or I<->; Or compound (I) is doubly quaternized and each R<3> is identical and: R<3> = -CH<sub>2</sub>C<sub>6</sub>H<sub>5</sub>; X<-> = Cl<->; Or: R<3> = -(CH<sub>2</sub>)<sub>p</sub>CH<sub>3</sub>; and X<-> = Br<-> or I<-> Or compound (I) is doubly quaternized and each R<3> is different and: the first R<3> = -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>; and X<-> = Cl or CH<sub>3</sub>OSO<sub>3</sub>; the second R<3> = CH<sub>2</sub>C<sub>6</sub>H<sub>5</sub>; and X<-> = Cl<->; or the second R<3> = -(CH<sub>2</sub>)<sub>p</sub>CH<sub>3</sub>; and X<-> = Br<-> or I<->; R<8>, R<11> = H or CH<sub>3</sub>; R<9>, R<10> = H or 1-5C alkyl; A<1> = O or NH; B<1> = CH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub> or CH<sub>2</sub>CH(OH)CH<sub>2</sub>; and R<12>, R<13> = H, 1-6C (hydroxy)alkyl, 5-12C cycloalkyl, 6-12C aryl or 7-12C alkylaryl. Independent claims are included for the preparation of these dispersions by radical polymerization of the monomers in the presence of a dispersant polymer.

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