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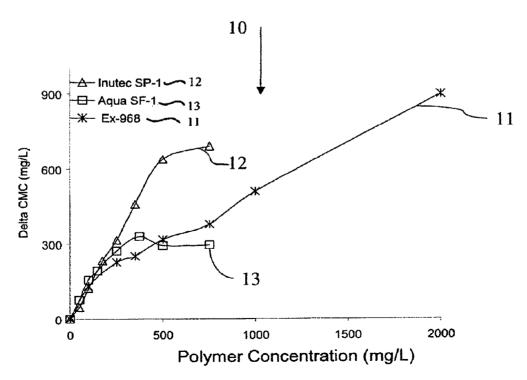
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#### **Published:**

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[Continued on next page]

#### (54) Title: LOW-IRRITATION COMPOSITIONS OF ACRYLIC COPOLYMER AND SURFACTANT



(57) Abstract: Provided are compositions comprising a low molecular weight, non-crosslinked, linear acrylic copolymer and at least one surfactant selected from the group consisting of anionic surfactants, amphoteric surfactants, and combinations of two or more thereof, and methods of using such compositions.

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## INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 07/83866

B. FIELDS SEARCHED  Minimum documentation searched (classification system followed by classification symbols)  USPC - \$22006 (2008 01)  Documentation searched with the fields searched USPC - \$24770.16, 70.22, 70.31, 78.31-search terms below  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  Google, personal care non-crosslinked copolymens and surfactants; USPTO - WEST: DB=PGPB, USPT, USPC, EPAB, JPAB  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  Y. US 6,642,188 B2 (PELEDERER et al) 04 November 2003 (04.11.2003) Cot 5, in 7-11; Cot 2, in 45.25; Cot 5, in 610; Cot 6, in 41-55; Cot 2, in 44-52; Cot 1, in 61-0; Cot 6, in 41-55; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 5, 10-20  Y. US 5,004,557 A (NAGARAJAN et al) 02 April 1991 (02.04.1991) Cot 9, in 4-8; Cot 7, in 10-15;  1-20  Y. US 2005/0070453 A1 (LIBRIZZI et al) 31 March 2005 (31.03.2005) para [0055]; [0141]-  Question of comments are listed in the communation of Box C.  Y. US 2005/0070453 A1 (LIBRIZZI et al) 31 March 2005 (31.03.2005) para [0055]; [0141]-  Question of careful parameters are comments are calculated to be of particular relevance, the chained invention cannot be considered to involve an inventive step when the document is cited to castiloth the publication date of another critation or other calculated of the comment of the comment is comment of the comment of the comment of the comment is comment of the comment of th	A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - C08F 220/06 (2008.01) USPC - 525/329.1				
Minimum documentation searched (classification system followed by classification symbols)  USPC - 250/283  IPC(8) - C08F 280/06 (2008.01)  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USFC - 424/70.16, 70.22 70.31, 78.31 - search terms below  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  Google: personal care non-crosslinked copolymers and surfactants; USPTO - WEST: USB-PGPB, USPT, USOC_EPAB, JPAB  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  12	According to International Patent Classification (IPC) or to both national classification and IPC				
USPC - 42470.16, 70.22. 70.31, 78.31- search terms below	Minimum documentation searched (classification system followed by classification symbols) USPC - 525/329.1				
Google: personal care non-crosslinked copolymers and surfactants; USPTO - WEST: DB=PGPB, USPT, USOC, EPAB, JPAB  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  Y. US 6,642,198.82 (PFLEDERER et al) 04 November 2003 (04.11.2003) Col 6, In 7-11; Col 2, In 43-52; Col 3, In 44-52; Col 13, In 65-64  Y. US 5,004,557 A (NAGARAJAN et al) 02 April 1991 (02.04.1991) Col 9, In 4-8; Col 7, In 10-15;  US 2005/0070453 A1 (LIBRIZZI et al) 31 March 2005 (31.03.2005) para [0055]; [0141]- [0146]; [0114]; Tables 4 and 6  Y. US 2003/0103929 A1 (MAUBRU) 05 June 2003 (05.06.2003) para [0088]  8 and 9    Interpolation or patent but published on or after the international filing date or priority date and oil to conflict with the application of understand the priority date in the priority date in the priority date claimed invention cannot be repeated to exist bish the published of another citation or other special reason (as specified to exist bish the published prior to the international filing date to the special reason (as specified with the application or other special reason (as specified to exist bish the published prior to the international filing date but later than """  document which may throw doubts on priority claim(s) or which is special reason (as specified to exist bish the published prior to the international filing date but later than """  document which may throw doubts on priority claim(s) or which is special reason (as specified to exist bish the published prior to the international filing date but later than """  document which may throw doubts on priority claim(s) or which is special reason (as specified to exist the published prior to the international filing date but later than """  document which may throw doubts on priority claim(s) or which is special reason (as specified to exist the published prior to the international filing date but later than """  document of particular relevance, the claimed inv	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC - 424/70.16, 70.22. 70.31, 78.31- search terms below				
Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  VS 6,642,198 B2 (PFLEDERER et al) 04 November 2003 (04.11.2003) Cot 6, in 7-11; Cot 2, in 43-52; Cot 3, in 6-10; Cot 6, in 41-53; Cot 2, in 44-52; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 58-67; Cot 2, in 44-52; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 24-40; Cot 2, in 44-52; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 24-40; Cot 2, in 44-52; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 24-40; Cot 2, in 44-52; Cot 3, in 24-40; Cot 2, in 43-52; Cot 3, in 24-40; Cot 2, in 44-52; Cot 3, in 24-40; Cot 9, in 44-8; Cot 7, in 10-15;  1-20  Special categories of cited documents:  "A" document defining the general state of the art which is and the principle or theory underlying the invention and the principle or theory underlying the invention cannot be considered to invention reconstitution or place.  "E" entire application or patent by published principle and the principle or theory underlying the invention cannot be considered to invent which may throw doubts on principle and invention cannot be considered to invention reconstitution or place.  "L" document vehic	Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Google: personal care non-crosslinked copolymers and surfactants; USPTO - WEST: DB=PGPB,USPT,USOC,EPAB,JPAB				
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43-52; Col 3, in 6-10; Col 6, in 41-53; Col 2, in 44-52; Col 3, in 24-40; Col 2, in 43-52; Col 3, in 58-67; Col 2, in 44-52; Col 15, in 55-64  Y  US 5,004,557 A (NAGARAJAN et al) 02 April 1991 (02.04.1991) Col 9, in 4-8; Col 7, in 10-15;  US 2005/0070453 A1 (LIBRIZZI et al) 31 March 2005 (31.03.2005) para [0055]; [0141]- [0146];[0114]; Tables 4 and 6  Y  US 2003/0103929 A1 (MAUBRU) 05 June 2003 (05.06.2003) para [0088]  **Touther documents are listed in the continuation of Box C.  **Special categories of cited documents:  **Ocument defining the general state of the art which is not considered to be of particular relevance  **Ere artier application or patent but published on or after the international filing date or priority date and not in conflict with the application but cited to establish the publication dor or after the international filing date or priority claims (signature) or other steed to establish the publication date of another citation or other special reason (as specified)  **Ocument published prior to the international filing date but later than the priority date calimed  **Date of the actual completion of the international search  19 January 2008 (19.01.2008)  **Authorized officer:  Lee W. Young  **Authorized officer:  Lee W. Young	Category*	Citation of document, with indication, where ap	ppropriate, of the relevant passages	Relevant to claim No.	
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means being obvious to a person skilled in the art document published prior to the international filing date but later than the priority date claimed document member of the same patent family  Date of the actual completion of the international search  19 January 2008 (19.01.2008)  Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US, Commissioner for Patents  being obvious to a person skilled in the art document member of the same patent family  Date of mailing of the international search report  20 MAR 2008  Authorized officer:  Lee W. Young	cited to establish the publication date of another citation or other special reason (as specified)		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is		
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PCT Helpdesk: 571-272-4300	Mail Stop PC P.O. Box 145	T, Attn: ISA/US, Commissioner for Patents io, Alexandria, Virginia 22313-1450	Lee W. Young		