

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number  
**WO 2004/084973 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 7/00**,  
C11D 1/62, 1/94, 3/37, 3/22

(21) International Application Number:  
PCT/US2004/009009

(22) International Filing Date: 24 March 2004 (24.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/457,054 24 March 2003 (24.03.2003) US

(71) Applicant (for all designated States except US): **BEC-  
TON, DICKINSON AND COMPANY** [US/US]; 1 Bec-  
ton Drive, Franklin Lakes, NJ 07417 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HOANG, Minh  
Quang** [US/US]; 7954 English Oaks Cover, Sandy, UT  
84093 (US). **HUNT, Donald Edward** [US/US]; 2402  
West 90 South, Provo, UT 84601 (US).

(74) Agents: **BALDAUF, Kent E., Jr.** et al.; Webb Ziesenheim  
Logsdon, Orkin & Hanson, P.C., 700 Koppers Building,  
436 Seventh Avenue, Pittsburgh, PA 15219-1818 (US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,  
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(88) Date of publication of the international search report:  
9 December 2004

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: INVISIBLE ANTIMICROBIAL GLOVE AND HAND ANTISEPTIC

(57) Abstract: An alcohol based hand surgical scrub, which includes cationic anti-microbial agent preservatives, cationic polymer film-forming agents and a skin emollient, and provides a long term residual, anti-microbial "invisible glove" on the skin. The composition provides an immediate reduction in bacterial microbes. The polymer system creates an invisible film on the skin following solvent evaporation. This invisible film provides a lasting anti-microbial barrier on the skin which acts to prevent microbial growth.



WO 2004/084973 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/09009

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 7/00; C11D 1/62, 1/94, 3/37, 3/22  
US CL : 424/400, 404; 510/130, 131, 138, 159, 383

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/400, 404; 510/130, 131, 138, 159, 383

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WEST, STN (CAPLUS, MEDLINE), NPL (SCIRUS), PALM

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,436,885 B2 (BIEDERMANN et al) 20 August 2002 (20.08.2002), columns 2, 3, 5, 6, 9-11.	1-8, 11, 17-19 ----- 9-10, 12-14, 16
X --- Y	US 6,451,748 B1 (TAYLOR et al) 17 September 2002 (17.09.2002), columns 3, 12, 15, 17-18.	1-8, 11, 17-19 ----- 9-10, 12-14, 16
Y	US 6,022,551 A (JAMPANI et al) 08 February 2000 (08.02.2000), columns 1-6.	9-10, 12-14, 16



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is 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 combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" 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

12 October 2004 (12.10.2004)

Date of mailing of the international search report

21 OCT 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Mina Haghighatian

Telephone No. 571-272-1600