# (19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 30 June 2005 (30.06.2005)

## (10) International Publication Number WO 2005/058238 A3

(51) International Patent Classification<sup>7</sup>: B32B 27/12

(21) International Application Number:

PCT/US2004/041556

(22) International Filing Date:

10 December 2004 (10.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/529,164 12 December 2003 (12.12.2003) US 60/551,426 9 March 2004 (09.03.2004) US 60/568,821 6 May 2004 (06.05.2004)

(71) Applicant (for all designated States except US): MI-CROBAN PRODUCTS COMPANY [—/US]; 11515 Vanstory Drive, Suite 125, Huntersville, NC 28078 (US).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): PAYNE, Stephen, A. [US/US]; 405 West 7th Street, #201, Charlotte, NC 28202 (US).
- (74) Agent: JACKSON, Susan, S.; Kennedy Covington Lobdell & Hickman, LLP, Hearst Tower, 47th Floor, Charlotte, NC 28202 (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,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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).

#### Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

### **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 February 2006

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

(54) Title: ANTIMICROBIAL COMPOSITION

(57) Abstract: An antimicrobial composition comprising a microemulsion for imparting antimicrobial characteristics to numerous products. The microemulsion can be aqueous or non-aqueous. A method of making the antimicrobial composition is also disclosed.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/41556

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7): B32B 27/12  US CL: 442/123  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.: 442/123			
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) Please See Continuation Sheet			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
A	US 6,464,764 B1 (LICHTENBERG et al) 15 October 2002 (15.10.2002), see entire		1-48
A	document. US 2003/0031687 A1 (FALDER et al) 13 February 2003 (13.02.2003), see entire document.		1-48
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 inte date and not in conflict with the applic principle or theory underlying the inve-	ation but cited to understand the
-	plication or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be considered 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		Date of mailing of the international search report	
11 November 2005 (11.11.2005)		Authorized officer	
Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US  Commissioner for Patents		Ula C. Ruddock	
P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Telephone No. 571-272-1200	Hon

Form PCT/ISA/210 (second sheet) (April 2005)