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(54) Title: MICROEMULSION GERMICIDAL COMPOSITION

(57) Abstract: A germicidal composition comprising an aromatic dialdehyde; a medium chain linear alcohol; a surfactant; at least one enhancer selected from the group consisting of a halide salt, a carbonate and a carboxylate salt; and water, wherein the germicidal composition is a microemulsion.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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Minimum documentation searched (classification system followed by classification symbols)

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

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EPO-Internal, BIOSIS, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 547 621 A2 (ETHICON INC [US]) 29 June 2005 (2005-06-29) paragraph [0017] - paragraph [0019] paragraph [0021] paragraph [0040] paragraph [0120] examples 9, 11	1-9
A	EP 1 661 587 A1 (ETHICON INC [US]) 31 May 2006 (2006-05-31) paragraph [0021] - paragraph [0024] paragraph [0044] paragraph [0094] examples 9, 11	1-9
A	CN 1 836 508 A (HUANG YAQIN [CN]) 27 September 2006 (2006-09-27) * abstract	1-9
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 559 435 A1 (ETHICON INC [US]) 3 August 2005 (2005-08-03) paragraph [0007] - paragraph [0008] -----	1-9
A	EP 0 292 301 A2 (SURGIKOS INC [US]) 23 November 1988 (1988-11-23) page 3, line 30 - page 4, line 10 -----	1-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/US2009/042269

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1547621	A2	29-06-2005	AR 048212 A1 12-04-2006
		AU 2004237836 A1 07-07-2005	
		BR PI0405733 A 10-01-2006	
		CA 2490047 A1 19-06-2005	
		CN 1647648 A 03-08-2005	
		CO 5580137 A1 30-11-2005	
		JP 2005187471 A 14-07-2005	
		KR 20050062443 A 23-06-2005	
		MX PA05000010 A 26-08-2005	
		US 2005136086 A1 23-06-2005	
		ZA 200410162 A 27-09-2006	
EP 1661587	A1	31-05-2006	AR 055538 A1 22-08-2007
		AU 2005227351 A1 15-06-2006	
		BR PI0505203 A 11-07-2006	
		CA 2528561 A1 30-05-2006	
		CN 1810108 A 02-08-2006	
		JP 2006151983 A 15-06-2006	
		KR 20060060615 A 05-06-2006	
		MX PA05012903 A 01-06-2006	
		ZA 200509664 A 30-04-2008	
CN 1836508	A	27-09-2006	NONE
EP 1559435	A1	03-08-2005	AR 050572 A1 08-11-2006
		AU 2005200128 A1 18-08-2005	
		BR PI0500149 A 06-12-2005	
		CA 2495133 A1 30-07-2005	
		CN 1647633 A 03-08-2005	
		JP 2005247831 A 15-09-2005	
		KR 20050077766 A 03-08-2005	
		MX PA05001165 A 18-10-2005	
		US 2005171216 A1 04-08-2005	
		ZA 200500829 A 25-10-2006	
EP 0292301	A2	23-11-1988	AR 245566 A1 28-02-1994
		AU 1642688 A 24-11-1988	
		BR 8802492 A 20-12-1988	
		CA 1337328 C 17-10-1995	
		GR 88100335 A 23-02-1989	
		IN 167948 A1 12-01-1991	
		JP 2574391 B2 22-01-1997	
		JP 63313705 A 21-12-1988	
		NZ 224621 A 27-09-1989	
		PH 24114 A 05-03-1990	
		PT 87553 A 31-05-1989	
EP 0292301	A2		US 4851449 A 25-07-1989
		ZA 8803616 A 31-01-1990	