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(54) Title: SYNERGISTIC PRESERVATIVE BLENDS

(57) Abstract: The present invention discloses a preservative formulation comprising the combination of at least two compounds having bactericidal and/or fungicidal properties, wherein the respective combination is selected from the group consisting of methylisothiazolinone/piroctone olamine; caprylyl glycol/dehydroacetic acid; undecanol/dehydroacetic acid and lauryl alcohol/sorbic acid.



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INTERNATIONAL SEARCH REPORT

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Week 200161 Thomson Scientific, London, GB; AN 2001-547500 XP002511402 & JP 2001 220599 A (FUTABA KAGAKU KK) 14 August 2001 (2001-08-14) abstract	1-9
X	WO 96/00060 A (PROCTER & GAMBLE [US]) 4 January 1996 (1996-01-04) claim 1	1-9
X	WO 02/03929 A (COLLABORATIVE TECHNOLOGIES INC [US]; AUST DUNCAN T [US]; WILMOTT JAMES) 17 January 2002 (2002-01-17) page 12, lines 1-7	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.
X	US 6 120 758 A (SIDDIQUI MUKHTAR [US] ET AL) 19 September 2000 (2000-09-19) column 14, lines 4-18 -----	1-9
X	US 2005/228032 A1 (MERIANOS JOHN J [US] ET AL) 13 October 2005 (2005-10-13) paragraph [0012] -----	1-9
X	WO 02/069710 A (LONZA AG [US]; LUTZ PATRICK JAY [US]) 12 September 2002 (2002-09-12) examples 4,5 -----	1-9
X	EP 1 238 651 A (JOHNSON & JOHNSON CONSUMER FR [FR]) 11 September 2002 (2002-09-11) paragraph [0013] -----	1-9
X	EP 1 759 688 A (OREAL [FR]) 7 March 2007 (2007-03-07) paragraph [0070] -----	1-9
X	EP 1 488 699 A (ROHM & HAAS [US]) 22 December 2004 (2004-12-22) paragraph [0029] -----	1-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2009/003610

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2001220599	A	14-08-2001	NONE
WO 9600060	A	04-01-1996	AT 210975 T 15-01-2002 AU 704481 B2 22-04-1999 AU 3070995 A 19-01-1996 CA 2193087 A1 04-01-1996 CN 1151115 A 04-06-1997 CZ 9603724 A3 11-06-1997 DE 69524755 D1 31-01-2002 DK 766557 T3 15-04-2002 EP 0766557 A1 09-04-1997 ES 2170158 T3 01-08-2002 JP 10502355 T 03-03-1998 PT 766557 E 31-05-2002
WO 0203929	A	17-01-2002	AU 7888501 A 21-01-2002
US 6120758	A	19-09-2000	NONE
US 2005228032	A1	13-10-2005	AU 2005235136 A1 03-11-2005 BR PI0509652 A 09-10-2007 CA 2560010 A1 03-11-2005 CN 1942170 A 04-04-2007 EP 1734922 A1 27-12-2006 JP 2007532542 T 15-11-2007 WO 2005102276 A1 03-11-2005
WO 02069710	A	12-09-2002	AT 343321 T 15-11-2006 BR 0207873 A 27-04-2004 CA 2439495 A1 12-09-2002 CN 1523959 A 25-08-2004 DE 60215616 T2 30-08-2007 EP 1363494 A1 26-11-2003 ES 2272704 T3 01-05-2007 HK 1068766 A2 12-01-2007 HK 1100811 A1 23-01-2009 JP 4361735 B2 11-11-2009 JP 2004524320 T 12-08-2004 JP 2009263374 A 12-11-2009 MX PA03007858 A 24-05-2004 NZ 527650 A 27-05-2005 NZ 539524 A 27-10-2006
EP 1238651	A	11-09-2002	AT 305770 T 15-10-2005 DE 60206433 D1 10-11-2005 DE 60206433 T2 20-07-2006
EP 1238651	A		ES 2252383 T3 16-05-2006
EP 1759688	A	07-03-2007	FR 2890309 A1 09-03-2007
EP 1488699	A	22-12-2004	EP 1525797 A2 27-04-2005 EP 1502508 A2 02-02-2005 EP 1523887 A2 20-04-2005 EP 1527684 A2 04-05-2005 EP 1527685 A2 04-05-2005 EP 1621076 A1 01-02-2006