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(54) **Title:** ADHESION PROMOTER RESIN COMPOSITIONS AND COATING COMPOSITIONS HAVING THE ADHESION PROMOTER RESIN COMPOSITIONS

(57) **Abstract:** Coating compositions are disclosed having a non-bisphenol A based film forming resin and an adhesion promoter resin. The coating compositions provide an alternate to epoxy resins that still allow melamine formaldehyde free cure, blush resistance, capability to retort and can withstand hard-to-hold beverages. In some embodiments, the coating compositions are used to coat substrates such as cans and packaging materials for the storage of food and beverages. Substrates can be coated by preparing an adhesion promoter composition by a method including mixing an epoxidized resin and a solvent to form a mixture, adding a phosphoric acid compound to the resulting mixture to form a phosphate ester, adding water to partially hydrolyze the phosphate ester, and adding a neutralizer to form the adhesion promoter resin, followed by blending the adhesion promoter resin with a non-bisphenol A based film forming resin to form a coating composition, and applying the coating composition to the substrate.

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
 INV. C09D5/08 C09D163/00
 ADD.
 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)
 C08G C09D

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)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 522 961 A (MARTINO PHILLIP C [US] ET AL) 11 June 1985 (1985-06-11) claim 1 examples 15,16,21	1-21
X	US 2003/004231 A1 (EHMANN EDUARD [DE] ET AL) 2 January 2003 (2003-01-02) examples 1,4 page 0018, line 8	1-21
X	US 2007/088111 A1 (MAKSIMOVIC LJILJANA [US] ET AL) 19 April 2007 (2007-04-19) claims 1,13,14,15 examples 1-4; table 1	1-6,10, 11,19,21
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer O'Sullivan, Timothy
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INTERNATIONAL SEARCH REPORT

International application No
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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	LEZHENINA G N ET AL: "Modifying additive for water-based polyorganosiloxane polymer and copolymer of butadiene with styrene", WPI / THOMSON,, vol. 2011, no. 37, 10 June 2010 (2010-06-10), XP002650580, abstract -----	1-21
A	GB 2 052 526 A (NIPPON SODA CO) 28 January 1981 (1981-01-28) claim 1; example 2 -----	1-21
A	GB 1 597 610 A (DOW CHEMICAL CO) 9 September 1981 (1981-09-09) claims 1,2,15 page 14, line 8 - line 11 -----	1-21

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Information on patent family members

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