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(54) Title: ADDITIVES FOR CURABLE LIQUID COMPOSITIONS

(57) Abstract: Transition metal complex siccative are provided. Aspects of the siccative include a transition metal complexed with a cyclic tetradentate ligand. Aspects of the invention further include compositions that include the siccative, as well as methods of making and using the same. Aspects of the invention further include use of the siccative as a catalyst in various syntheses.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/066245**A. CLASSIFICATION OF SUBJECT MATTER***C08L 67/06(2006.01)i, C08L 75/04(2006.01)i, C08K 5/56(2006.01)i, C08G 63/82(2006.01)i, C08G 18/16(2006.01)i*

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)

C08L 67/06; C08K 5/098; C08G 63/06; C09J 4/02; C08K 5/16; C09D 11/00; C08L 101/00; C03C 17/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: siccative, porphyrin, ligand, complex, transition metal, dry, resin

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2005-154628 A (DAINIPPON INK & CHEM. INC.) 16 June 2005 See abstract; paragraphs [0015]–[0019], [0023], [0036], [0057].	1–15
X	US 6344516 B1 (IKEDA, RYOHEI et al.) 05 February 2002 See claims 1,4,5; column 16 line 15–18.	1,2,6–8
A	US 2005-0245639 A1 (OOSTVEEN, EVERARDUS et al.) 03 November 2005 See claims 15,17,26,31; paragraph [0012].	1–15
A	JP 02-263880 A (DAIABONDO KOGYO KK.) 26 October 1990 See abstract; claims 1–3.	1–15

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2005-154628 A	16.06.2005	JP 4581383 B2	17.11.2010
US 6344516 B1	05.02.2002	DE 60031761 D1	21.12.2006
		DE 60031761 T2	20.09.2007
		EP 1114836 A1	11.07.2001
		EP 1114836 A4	16.10.2002
		EP 1114836 B1	08.11.2006
		JP 3760406 B2	29.03.2006
		WO 01-00702 A1	04.01.2001
US 2005-0245639 A1	03.11.2005	AU 2003-230461 A1	17.11.2003
		EP 1501906 A1	02.02.2005
		WO 03-093384 A1	13.11.2003
JP 02-263880 A	26.10.1990	None	