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(54) Title: FERRIC AND ACID COMPLEX

(57) Abstract: A ferric and acid complex includes the reaction product of a chelant, iron oxide, a base, and a reaction promoter. The chelant has at least one carboxylic acid functionality. The reaction promoter has an Fe<sup>3+</sup> ion. A process for preparing the ferric and acid complex in a vessel includes charging solvent, the chelant, the base, the iron oxide, and the reaction promoter into the vessel. The solvent, chelant, base, iron oxide, and reaction promoter are heated to a temperature of at least 170 °F for a period of at least about 3 hours to form the ferric and acid complex. Due to the use of the reaction promoter having the Fe<sup>3+</sup> ion, the process for preparing the ferric and acid complex results in reduced degradation of the chelant during processing and, thus, a high quality ferric and acid complex.

## INTERNATIONAL SEARCH REPORT

International application No PCT/US2006/022238

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07F15/02 C07C2 C07C229/16 C07C227/18 G03C1/64 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) C07F CO7C GO3C 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 practical, search terms used) EPO-Internal, WPI Data, CHEM ABS Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 3 767 689 A (DONOVAN T ET AL) 1,2,5,7, 23 October 1973 (1973-10-23) 8,10 claim 1; examples 1-8,11,12 EP 0 471 583 A1 (W.R. GRACE) 1,2,5, χ 19 February 1992 (1992-02-19) 7-12 claims 1,2 D.T. SAWYER, ET AL.: "Properties and 1 - 25Α infrared spectra of ethylenediaminetetraacetic acid complexes. III. Chelates of higher valent ions" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 82, no. 16, 20 August 1960 (1960-08-20), pages 4191-4196, XP002402874 AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC, US the whole document Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: "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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date 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) involve an inventive step when the document is taken alone 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 "O" document referring to an oral disclosure, use, exhibition or other means in the art. \*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 16 October 2006 30/10/2006 Authorized officer Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, English, Russell Fax: (+31-70) 340-3016

## INTERNATIONAL SEARCH REPORT

Information on patent family members

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