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(54) Title: POLYMERIC POLYOL ESTERS USED IN METALWORKING FLUIDS

(57) Abstract: Polymeric polyol ester additives for metal working applications are described that have lower pour points and improved solubility in API Group II and III basestocks. The polymeric polyol ester contains linear moiocarboxylic acid, alkanedioic acid, alk(en)yl substituted succinic acid or anhydride, trihydric alcohol and pentaerythritol.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. C10M145/22 C10M173/00 C08G63/12
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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)

C10M C08G

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/080772 A (LUBRIZOL CORP [US]; PATEL HARISH R [US]; KIMES JOHN A [US]) 2 October 2003 (2003-10-02) claims 1-21	1-10
A	EP 0 727 455 A (NIPPON ZEON CO [JP]; HARIMA CHEMICALS INC [JP]; NIPPON OIL CO LTD [JP]) 21 August 1996 (1996-08-21) page 3, lines 4-47; claim 1	1-10

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

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O document referring to an oral disclosure, use, exhibition or other means

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

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.

G 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
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			CA 2479717 A1	02-10-2003
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